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# PSYCHOLOGICAL ABSTRACTS

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# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

2072. **Bartlett, F. C. Experimental method in psychology.** *J. Gen. Psychol.*, 1930, **4**, 49–66.—A discussion of several of the factors which have influenced experimental psychology. The conclusion is reached that the experimental psychologist must claim that he is as much clinician as experimenter. No experimental psychologist must profess the dogma of constancy of objective conditions. He must be satisfied with indicating trends and proclivities rather than dogmatic laws; and he should avoid the common habit of reaching broad generalizations which are not justified by his results.—*H. Cason* (Wisconsin).

2073. **Conner, W. H. An inexpensive but practical scotometer.** *U. S. Vet. Bur. Med. Bull.*, 1931, 7, 88–90.—*C. M. Louttit* (Ohio).

2074. **Dashiell, J. F. Some simple apparatus for serial reactions.** *J. Exper. Psychol.*, 1930, **13**, 352–357.—A Ranschburg memory apparatus is wired in series-multiple with 3 magnetic signal markers through three telegraph keys. The markers indite on a kymograph. Speed of presentation is set by the speed of reaction. The Ranschburg cards carry series of numbers, in chance order, corresponding to the keys. A bank of 24 miniature lamps is so arranged that after the E has closed a switch illuminating lamp No. 1, the next lamp in a series flashes on. The S then selects the switch which puts this lamp out and this lights up the next one, and so on until No. 24 is reached. Flexible leads and pin jacks on the rear of the panel permit a multiplicity of maze patterns. A non-visual serial apparatus consists of wood blocks of different shapes and a brass plate through appropriate holes of which the blocks can be passed. A bi-pedal pivot switch is to be kept moving in opposite and alternate directions. Mercury dips provide a heel-toe series circuit for timing. —*S. Renshaw* (Ohio State).

2075. **Hankins, D. (Ed.) Current research projects.** *Amer. J. Sociol.*, 1931, **36**, 782–809.—There are 247 projects as reported to November 1, 1930, listed by subject and author, including the scope of the study and the author's address. Some of the projects of psychological interest are: The process of undergraduate orientation (R. C. Angell), Parental introversion as a factor in the development of children (N. Redenour and B. Taylor), A study of behavior traits by means of observation of play behavior of children between the ages of five and nine (M. Smith), Boys' Club study, New York University (F. M. Thrasher), The girl grows up—a study of the development of social behavior in girls between the ages of six and sixteen (E. Ward, C. Moffit, and N. Parker), A personality-testing study of seventy-five senior college women (J. K. Folsom), Personality analysis of college students by the method of tests, inventories, and autobiographies (V. C. Wright), A study in disorganization of personality and conflict in marriage relations (H. R. Mowrer), The function of the congeniality group (K. Young and R. Knoernschild), A study of the intelligence of rural and urban children (C. P. Armstrong), The relative rates of learning of colored and white children (W. G. Bergman et al.), A study of the pupils of a continuation school (M. Ehrlich), Religious factors in dementia praecox cases (A. T. Boisen), Specific types of delinquency in boys (C. P. Armstrong), Study of conduct habits of Boy Scouts (H. P. Fairchild), Duration of hospital life of mental patients (R. G. Fuller), What happens to mental patients during ten years after discharge from hospital (R. G. Fuller), A scale for measuring social adequacy (M. J. McCormick), The agreement of untrained judges concerning personality traits (M. Smith). There are numerous studies of mobility of population, racial and cultural groups, community life, social institutions, from which no selections have been given.—*E. R. Hilgard* (Yale).

2076. **Mauerhofer, H. Warum treibt der Mensch Psychologie?** (Why does man study psychology?) *Psychol. Rundschau*, 1931, 2, 289–292.—The author inquires into the problem of why mankind should become interested in psychology at all, and what type of mind is apt to become interested in it. The psychologist withdraws attention from the objective world and becomes conscious of the stream of thought-life. He comes to view the objective world in relation to its effects upon the inner life. The author claims that interest in self arises from mental conflict (trauma). All psychology begins with a study of self, but from this phase to scientific investigation is a long step, which involves the abandonment of the mental conflict cause, thus enabling the impersonalization of the study. He agrees with Theodor Reik in his work How One Becomes a Psychologist.—*A. B. Herrig* (Michigan Central State Teachers College).

2077. **Teagarden, F. M. Cycles of thought.** *Kadelpian Rev.*, 1930, **10**, 5–15.—Examples of cycles in the "round-trip from fore-ordination through free will and back to fore-ordination" (mechanism); in Gestalt psychology; in the stimulus-response hypothesis; in the *tabula rasa* idea, etc.—*E. B. Heim* (Provo, Utah).

**[See also abstract 2356.]**

## SENSATION AND PERCEPTION

2078. **Angyal, A. Über die Raumlage vorgestellter Örter.** (The position in space of visualized places.) *Arch. f. d. ges. Psychol.*, 1930, **78**, 47-94.—The total impression of visually perceived figures contains their position in space as an integrating factor. The problem of this investigation was to find out the nature of the association between visualized places and their position in space. 16 observers, retaining the same position throughout the experiment, were asked to draw a plan of how to go from one part of a town (Turin) to another. 12 tasks of this sort were performed by each observer, besides indicating the center of the town and the situation of various public buildings. The observers could be divided into two groups. Those belonging to the first group oriented from their present position. Those belonging to the second group did not refer to their present position but consistently drew parallel streets in the same direction on different plans as if the town were placed on a definite system of coordinates. This system is described by the author as a far-near-right-left system. Observers of the last group called their orientation "natural," but were unable to explain it.—*K. F. Muenzinger* (Colorado).

2079. **Barbieri, A. El campo visual luminoso y el reflejo pupilar. La perimetría objetiva. Su importancia clinica. Un nuevo perímetro pupiloscópico.** (The luminous visual field and the pupillary reflex; the clinical importance of objective perimetry; a new pupilloscopic perimeter.) *Prensa méd. Argentina*, 1929, **16**, 928-939.—(*Biol. Abst.* V: 4201).

2080. **Benjamins, C. E. Enkele beschouwingen over het onderzoek van het gehoor met het gesproken woord.** (Research in audiometry with the spoken word.) *Nederlandsch Tijdschr. Geneeskunde*, 1929, 73, 4359-4369.—(*Biol. Abst.* V: 1096).

2081. **Boll, M. Le maximum de sensibilité de l'oeil.** (The maximum sensitivity of the eye.) *Rev. gen. des sci.*, 1930, **41**, 432-433.—Using measurements previously made by him on the sensitivity of the eye, the author decides that the adaptation of the eye to the sun's rays, which appears so remarkable, is, after all, very ordinary.—*Math. H. Piéron* (Sorbonne).

2082. **Cesare, T. Influenza delle luci colorate sulla perdita dell' adattamento retinico.** (Influence of colored light on the loss of retinal adaptability.) *Arch. fisiol.*, 1929, **27**, 30-38.—(*Biol. Abst.* V: 4202).

2083. **Chou, S. K. Reading and legibility of Chinese characters. II.** *J. Exper. Psychol.*, 1930, **13**, 332-351.—Seven Chinese characters were cut in halves and exposed to 16 Chinese readers by means of Chou's quadrant tachistoscope. The left and upper halves were more suggestive of the whole characters than either right or lower halves, both on the basis of reading time and completeness of reproduction. This is in accord with the fact that most radicals are either at the top or to the left of the character and the left and upper parts are frequently written first. The author holds that "the fact that right and upper halves of the shutter and line (methods) give faster reading and yield more reproduction is perhaps due to *primacy* and *right-handedness*." Character-position is found to be the most important factor in speed of reading and reproduction, and "characters are usually printed upright and never in any other position."—*S. Renshaw* (Ohio State).

2084. **Collier, R. M. An experimental study of form perception in indirect vision.** *J. Comp. Psychol.*, 1931, **11**, 281-289.—The object of the study was to observe the effects of indirect vision upon the perception of simple geometric forms. The apparatus consisted of a Meyrowitz perimeter with a radius of 40 cm. The geometric forms used were: circle, octagon, hexagon, square, parallelogram, equilateral triangle, and isosceles triangle. The ten observers used were given preliminary training in keeping fixation constant. Exposure of forms began at 20° eccentricity and continued at 10° intervals to the peripheral limits of the visual field. All forms were exposed in random order at each step. The O was required to name the form as he had seen it and rate his certainty of judgment between one and five (one high). O controlled the exposure key, and took as much time as seemed necessary for the particular form and degree of eccentricity. Results allowed the following tentative conclusions: (1) Extent of the perceptual field was greatest for triangular forms; least for circular forms; intermediate for square and parallelogram. (2) There was highest certainty of rating for triangular forms; least for circular forms and intermediate for the remaining two. (3) Time consumed in exposure was shortest for triangles; longest for octagon, hexagon and circle; square and parallelogram again occupied an intermediate position. (4) Vertical quadrants gave a lower percentage of correct responses, less certainty and longer time exposures than the horizontal quadrants. (5) At the greater eccentricities of the visual field, the forms became elongated with the major axis of the test object at right angles to the plane of the quadrant.—*R. M. Collier* (Northwestern).

2085. **Dimmick, F. L., & Karl, J. C. The effect of the exposure time upon the R. L. of visible motion.** *J. Exper. Psychol.*, 1930, **13**, 365-372.—After reviewing the works of Porterfield, Schmidt, Muncke, Valentine, Aubert, and Bourdon, the authors decided to examine the effect, noted by Aubert, that minimal liminal values for visual motion were obtained "when the movement was viewed for several seconds." The apparatus consisted of a black screen (67 x 84 cm.) with a movable white dot 2 mm. square at the center. The screen was 240 cm. from the S, placed in a dark room. At this distance the dot subtended an angle of 2′ 42″. The screen was illuminated by a 100 watt daylight Mazda lamp above the S's head, flashed on only for the exposure periods. The S's head was in a head-rest with one eye covered. The movement of the dot was controlled by an endless thread which passed over a rotating drum, which also served as an interval timer. The three S's used the constant process method with exposures of 0.5,

1, 2 and 4 seconds. The judgments asked were "whether the white dot moves, and if so, in what direction" and also "describe the criteria on which you base your judgment." The lower limen for motion, in sec. of arc per sec., decreases as the exposure time increases. For the shorter exposures the values are identical with those of the minimal space limen. The perceptions appear to be simple integrations of extents, in the case of the shorter exposures simultaneous, in the longer case successive. Duration enters simply as the stimulus factor that modifies these extents.—*S. Renshaw* (Ohio State).

2086. **Dodge, R. Fundamental steps in the development of adaptive behavior of the eyes.** *J. Gen. Psychol.*, 1930, **4**, 3–14.—A study was made of the eye movements involved in following an oscillating object, in fixating a stationary object, and in fixating new objects of regard. The approximation and correction which are observed in eye-movements also appear in other human adjustments. "The tendency of an adjustment pattern to break down at or near its physiological limit and to give place to a simpler form of reaction appears in response to relatively simple stimuli as well as in response to the complex stimuli of our social and economic environment. Anticipatory reaction is found in a simple form of human adaptive behavior as well as that which depends on insight and purpose."—*H. Cason* (Wisconsin).

2087. **Dunford, R. E. The genetic development of cutaneous localization.** *J. Genet. Psychol.*, 1930, **37**, 499–513.—Practice in localization was given individuals of certain age groups between 3 and 15 years, in 5 trials of 50 localizations each, administered on alternate days. Some results are: all age groups showed consistent improvement in accuracy; individual differences increased with age; no clear relationship appeared between extent and direction of error, though the younger erred more in the proximal and the older in the distal direction; great skill in localizing was found even in the 3-year-olds. It is argued that the results substantiate the claims both of the empiricists and of the modified nativists; and "local signature is but a special aspect of the general problem of learning."—*J. F. Dashiell* (North Carolina).

2088. **Edridge-Green, F. W. Influence of the para-foveal regions on the foveal region of the retina.** *Nature*, 1929, **124**, 877.—(*Biol. Abst.* V: 1099).

2089. **Fedorowa, V. Frage über die Empfindlichkeit des Auges gegen die Farbtonänderung.** (The sensitiveness of the eye to differences in color.) *J. Psychol. u. Neur.*, 1929, **40**, 65–69.—(*Biol. Abst.* V: 4203).

2090. **Fergus, F. Peripheral vision in relation to work.** *Proc. Roy. Phil. Soc. Glasgow*, 1927-28 (1928), **56**, 53–60.—(*Biol. Abst.* V: 4204).

2091. **Ferree, C. E., & Rand, G. Size of stimulus and brightness of pre-exposure and of surrounding field in relation to the extent and shape of the color fields.** *J. Gen. Psychol.*, 1930, **4**, 15–35.—The size of the stimulus is an important determinant of the visibility of color in the peripheral field. By increasing the size of the stimulus the limits of sensitivity to red and blue were made almost coextensive with the limits of the field of vision. The size of the stimulus produced the least effect when the brightness of the pre-exposure and the surrounding field was of the same brightness as the color.—*H. Cason* (Wisconsin).

2092. **Fischer, V. B. Eye contour a visual factor.** *Arch. Ophth.*, 1930, **3**, 413–418.—(*Biol. Abst.* V: 4206).

2093. **Friedmann, W. L. Zum Mechanismus der Knochenleitung des Stimmgabeltones.** (Mechanism of bone conduction of tuning fork tones.) *Monatssch. Ohrenhk.*, 1929, **63**, 1208–1210.—(*Biol. Abst.* IV: 27473).

2094. **Gliddon, G. H. An optical replica of the human eye for the study of the retinal image.** *Arch. Ophth.*, 1929, **2**, 138–163.—(*Biol. Abst.* IV: 27475).

2095. **Gothlin, G. F., & Raab, N. Vergleichende Bestimmungen der Auslösungszeit für nichtvisuelle und visuelle Bewegungseindrücke bei durch schwachen galvanischen Strom hervorgerufenen Augenbewegungen.** (Comparative determination of the fading time of non-visual and visual impressions of movement in eye movements elicited by a weak electric current.) *Arch. ges. Physiol.*, 1928, **219**, 726–732.—(*Biol. Abst.* V: 1100).

2096. **Göthlin, G. F. Die Entdeckung eines nervösen Hemmungsmechanismus für die am höchsten organisierte Flimmerbewegung.** (Discovery of an inhibitory nervous mechanism for the most highly organized vibratory movement.) *Skand. Arch. Physiol.*, 1929, **58**, 11–32.—(*Biol. Abst.* IV: 27514).

2097. **Graham, C. H. An investigation of binocular summation: I. The fovea.** *J. Gen. Psychol.*, 1930, **3**, 494–510.—A review of some of the literature on the problem of binocular summation is given. The results indicate that there is no summation effect in the fovea when the pupil area is controlled. The thresholds of the two eyes are approximately those of the more sensitive eye.—*H. Cason* (Wisconsin).

2098. **Greene, T. C. The ability to localize sound: a study of binaural hearing in patients with tumor of the brain.** *Arch. Surg.*, 1929, **18**, 1825–1841.—(*Biol. Abst.* V: 1101).

2099. **Hambloch, H., & Püschel, J. Über die sinnlichen Erfolge bei Darbietung von Geschmacksmischungen.** (The sensory results of the presentation of taste mixtures.) *Zsch. Sinnesphysiol.*, 1928, **59**, 136–150.—(*Biol. Abst.* V: 4210).

2100. **Hambloch, H., & Püschel, J. Zur Frage der Lokalisation von Riechquellen.** (Localization of the sources of odor.) *Zsch. Sinnesphysiol.*, 1928, **59**, 151–155.—(*Biol. Abst.* V: 4211).

2101. **Hazzard, F. W. A descriptive account of odors.** *J. Exper. Psychol.*, 1930, **13**, 297–331.—After a careful review of various olfactory classifications—following Zwaardemaker and Henning—

the writer believed that the confused state of things called for a new method of study. This was to be a method descriptively phenomenological, in the hope that new criteria of classification might emerge and that these might be "independent of qualities or correlated with them." The six S's were instructed to "describe your experience," and later "the course of your experience," still later "noting particularly the course from the time specificity is reached." Intensities were approximately equal. Heliotropin, geranium oil, tonka bean, coumarin, tar, amyl alcohol, carbon disulfide, pyridine, hydrogen sulfide, benzol, apiol, sweet orange oil, cedarwood oil and cinnamon oil were used as odors. Results in general fit into Henning's odor prism, except tar, sweet orange oil and cinnamon oil, which belong in the interior of the figure. Odor experience was found to be dependent on the attitude of the observer.—*S. Renshaw* (Ohio State).

2102. **Hecht, S. Eine Grundlage für die Beziehung zwischen Sehschärfe und Beleuchtung.** (A basis for the relation between visual acuity and illumination.) *Naturwiss.*, 1930, **18**, 233–236.—(*Biol. Abst.* V: 1102).

2103. **Helsmoertel, J., Jr., & Nyssen, R. Recherches expérimentales sur la sensibilité à la douleur accompagnant les excitations auditives. (Note préliminaire.)** (Sensitivity to pain accompanying auditory stimuli.) *Arch. internat. laryngol., otol., rhinol.*, 1929, **8**, 1025–1028.—(*Biol. Abst.* V: 1103).

2104. **Higier, H. Der Schmerz als sympathische Erscheinung und seine Stellung zum animalen und vegetativen Nervensystem im allgemeinen.** (Pain as a sympathetic phenomenon and its relation to the animal and vegetative nervous system in general.) *Dtsch. Zsch. Nervenhk.*, 1926, **89**, 196–210.—(*Biol. Abst.* IV: 27517).

2105. **Hume, C. W. Model illustrating the mosaic theory of the compound eye.** *Phys. Soc. London Proc.*, 1930, **42**, 290.—(*Biol. Abst.* V: 1105).

2106. **Kardos, L. Diskussionen über Probleme des Farbensehens. Erwiderung an D. Katz.** (Discussions of problems of color perception. Reply to D. Katz.) *Arch. f. d. ges. Psychol.*, 1930, **78**, 185–215.—A reply to an evaluation by Katz of the author's work on the perception of colors.—*K. F. Muenzinger* (Colorado).

2107. **Katz, D. Einige Bemerkungen zu dem vorstehenden Artikel von Kardos.** (Some remarks about the preceding article by Kardos.) *Arch. f. d. ges. Psychol.*, 1930, **78**, 215–216.—A brief reply to Kardos' polemic against Katz (see V: 2106).—*K. F. Muenzinger* (Colorado).

2108. **Keeler, C. E. The functional capacity of transplanted adult frog eyes.** *J. Exper. Zool.*, 1929, **54**, 461–472.—(*Biol. Abst.* V: 4213).

2109. **Knudsen, V. O., & Jones, I. H. The effect of audible and of sub-audible vibrations on the acuity of hearing.** *Arch. Pathol.*, 1929, **8**, 472–479.—(*Biol. Abst.* V: 4214).

2110. **Lythgoe, R. J., & Tansley, K. Reports of the committee upon the physiology of vision. V. The adaptation of the eye; its relation to the critical frequency of flicker.** *Med. Res. Council; Spec. Repr. Ser. 134*, 1929, 5–72.—(*Biol. Abst.* IV: 27478).

2111. **Marinesco, G., & Bruch, H. A. Sur un nouveau réflexe vasculaire, le réflexe oculocapillaire.** (A new vascular reflex, the oculo-capillary reflex.) *Rev. neur.*, 1929, **36**, 591–592.—(*Biol. Abst.* IV: 27523).

2112. **Mazzucconi, M. L'acuità visiva in rapporto dell' illuminazione.** (Visual acuity in relation to illumination.) *Arch. Ottalmol.*, 1928, **35**, 49–71.—(*Biol. Abst.* V: 1108).

2113. **McNally, W. J. Five lectures on the physiology of the ear. I. The physiology of the cochlea with some remarks about the clinical tests for hearing.** *Ann. Otol., Rhinol. & Laryngol.*, 1929, **38**, 1163–1180.—(*Biol. Abst.* IV: 27479).

2114. **McNally, W. J. Five lectures on the physiology of the ear. II. The physiology of the saccule and saccus endolymphaticus.** *Ann. Otol., Rhinol. & Laryngol.*, 1929, **38**, 1180–1196.—(*Biol. Abst.* IV: 27480).

2115. **McNally, W. J. Five lectures on the physiology of the ear. III. Physiology of the utricle and its association with posture. (Concluded.)** *Ann. Otol., Rhinol. & Laryngol.*, 1930, **39**, 248–290.—(*Biol. Abst.* V: 1107).

2116. **Meyer, M. F. Hearing without cochlea?** *Science*, 1931, **73**, 236–237.—A hope that the auditory nerve could be stimulated directly without the mediation of the cochlea disappears, as it is found that the phenomenon upon which it was based resolves into the functioning of slightly stretched horny skin as a vibrator.—*R. R. Willoughby* (Clark).

2117. **Möller, H. U. Untersuchungen über das Dunkelsehen mit Tschernings photometrischen Gläsern.** (Studies of dark vision with Tscherning's photometric glasses.) *Acta Ophth.*, 1929, **7**, 1–145.—(*Biol. Abst.* V: 1111).

2118. **Mukherjee, K. C. Vierordt's law.** *Brit. J. Psychol.*, 1931, **21**, 326–328.—This paper gives an account of an investigation into the validity of Vierordt's contention that the space limen of a point in a limb varies inversely with its distance from the axis of its rotation. The palmar side of the right arm was chosen for exploration. The tip of the finger yielded the smallest space limen in the series; this agreed with the law. When, however, the space limen of points adjacent to joints was compared to those of the other joints lying more distant from them, it was found that the points adjacent to the joints were more delicately discriminative than the points in the middle part of the region. Nine subjects appear to have been used in this investigation. A general survey of the records showed that the tip of the middle finger was most sensitive, but that the extreme part of the shoulder, which should, according to Vierordt's law, be the dullest, displayed on the contrary a fairly delicate sensitivity. The general trend of sensitivity over the remaining part of

the arm was in agreement with the law, except that the areas adjacent to joints were more sensitive than the areas lying between two joints. The paper concludes with a discussion of the probable physiological peculiarities corresponding to this difference in the keenness of sensitivity in different areas along the arm.—*M. Drury-Smith* (Cambridge, England).

2119. **Peddie, W. The general applicability of Fechner's law in colour sensation.** *Nature,* 1929, 124, 791–792.—(*Biol. Abst.* IV: 27485).

2120. **Petzoldt, S. Experimentelle Beiträge zur Lehre vom Vibrationssinn.** (The theory of the sense of vibration.) *Zsch. Psychol.,* 1928, **108**, 155–194.—(*Biol. Abst.* V: 4222).

2121. **Poulton, E. P. An experimental study of certain visceral sensations.** *Lancet,* 1928, **2**, 1223–1230.—(*Biol. Abst.* IV: 27532).

2122. **Poulton, E. P. An experimental study of certain visceral sensations. II. Cutaneous oesophageal reflexes and counter-irritation.** *Lancet,* 1928, 2, 1277–1285.—(*Biol. Abst.* IV: 27533).

2123. **Purdy, D. McL. On the saturations and chromatic thresholds of the spectral colours.** *Brit. J. Psychol.,* 1931, **21**, 283–313.—These experiments indicated the presence of a colorless interval in the fovea for spectral stimuli of wave-length less than 665μ. The specific threshold was decreased by dark adaptation but did not as a rule coincide with the general threshold. The value for the general and specific thresholds was measured for the different wave lengths of the spectrum. It is suggested that the fact that the complete desaturation of colors near the threshold of visibility is only a limiting stage of the partial desaturation which takes place at moderately low intensities, may be interpreted as a result of the inadequacy of a discriminatory mechanism. Measurements were made for the different wave lengths of the spectrum of the intensity which was required to produce maximum saturation; roughly, the more saturated a color the lower the intensity at which its saturation became a maximum. It was deduced that the chromatic threshold of a hue was inversely proportional to its complementation valence; the chromatic thresholds of two complementary hues were in the same ratio as the respective intensities of those hues which were required for complementation. It is considered that this relationship may be interpreted in terms of the Hering theory. Contrary to the findings of Révész, a curve concave upward was obtained when for any given wave length the chromatic threshold was plotted as a function of the intensity of the white stimulus. The fractional chromatic threshold was not found to be perfectly correlated with subjective color saturation, but appeared to be closely related to it.—*M. Drury-Smith* (Cambridge, England).

2124. **Stookey, B. Further light on the transmission of pain and temperature within the spinal cord: human cordotomy to abolish pain sense without destroying temperature sense.** *J. Nerv. & Ment. Dis.,* 1929, **69**, 552–557.—(*Biol. Abst.* IV: 27542).

2125. **Terada, T. Projection of long spark upon the yellow spot of the retina.** *Nature,* 1930, **125**, 528.—(*Biol. Abst.* V: 1116).

2126. **Tschermak, A. Licht- und Farbensinn.** (Light and color-sense.) *Handb. normalen u. path. Physiol.,* 1929, **12**, 295–501.—(*Biol. Abst.* IV: 27490).

2127. **Villalobos Domínguez, C. Los colores que veían los griegos.** (Colors seen by the Greeks.) *Nosotros,* 1930, 24 (252), 222–230.—(*Soc. Sci. Abst.* III: 183).

2128. **Waardenburg, P. J. Über die Kombination von totaler Farbenblindheit und Netzhautverödung in einer Person, nebst Mitteilungen über kongenitale Achromatopsie und Makulagelb.** (The combination of total color blindness and atrophy of the retina in one patient, with remarks on congenital color blindness in relation to the macula lutea.) *Klin. Monatsbl. f. Augenhk.,* 1930, **84**, 493–509.—(*Biol. Abst.* V: 3810).

2129. **Werner, C. F. Über die Erregungsvorgänge im Labyrinth.** (Excitatory processes in the labyrinth.) *Zool. Anz.,* 1929, **4**, 99–104.—(*Biol. Abst.* IV: 27492).

2130. **Wilkinson, G. Demonstration of a model resonator, designed to illustrate the mechanism of the cochlea.** *J. Laryngol. & Otol.,* 1930, **45**, 28–32.—(*Biol. Abst.* V: 1117).

2131. **Yates, A. L. The evolution of the sense of hearing.** *J. Laryngol. & Otol.,* 1930, 45, 32–45.—(*Biol. Abst.* V: 1119).

**[See also abstracts 2147, 2170, 2231, 2251, 2252, 2253, 2268, 2272, 2311, 2312, 2318, 2322, 2524.]**

## FEELING AND EMOTION

2132. **[Anon.] Suggestion and fear.** *Rehab. Rev.,* 1930, **4**, 106–112.—(*Soc. Sci. Abst.* III: 1822).

2133. **Barcroft, J. Some effects of emotion on the volume of the spleen.** *J. Physiol.,* 1930, **68**, 375–382.—(*Biol. Abst.* IV: 27496).

2134. **Bridges, K. M. B. A genetic theory of the emotions.** *J. Genet. Psychol.,* 1930, **37**, 514–527.—Three years' daily observations of emotional behavior of nursery school children have led to an extension and modification of the theories of Watson, Dashiell, and Stratton. An original undifferentiated and unpatterned emotion of excitement early becomes differentiated into distress and delight, on the basis of interference or non-interference with natural and compensatory motor adjustments. These two become further differentiated into some six, and later into numerous other emotions. The differentiation of emotions occurs as a complex story of the differentiation of some of the visceral components, their conditioning to certain stimuli, and their combinations with particular skeletal responses. No two individuals develop the same set of emotions, except as common experiences lead to the organizing of common emotions.—*J. F. Dashiell* (North Carolina).

2135. **Flowers, H. L. A study of the emotions in psychotic patients.** *U. S. Vet. Bur. Med. Bull.,* 1930, **6**, 1055–1058.—A further study of a small

group of patients with the Pressey X-O test. The results accord with those previously reported on a larger group (see IV: 235).—*C. M. Louttit* (Ohio).

2136. **Fulton, J. F., & Ingraham, F. D. Emotional disturbances following experimental lesions of the base of the brain (pre-chiasmal).** *J. Physiol.*, 1929, **67**, xxvii-xxviii.—(*Biol. Abst.* IV: 27509).

2137. **Jones, H. E. The conditioning of overt emotional responses.** *J. Educ. Psychol.*, 1931, **22**, 127–130.—In a child 15 months old, the phenomena of conditioning, irradiation, discrimination, extinction, reinforcement, temporary external inhibition, and spontaneous recovery are demonstrated.—*J. A. McGeoch* (Missouri).

2138. **Störring, G. E., & Störring, G. Experimentelle Untersuchungen zur allgemeinen Gefühlslehre.** (Experimental investigations concerning the general theory of feeling.) *Arch. f. d. ges. Psychol.*, 1931, **78**, 273–378.—9 observers were presented with certain stimulus words and asked to assume an emotional attitude in regard to them on the basis of imagined situations. Their introspections were then analyzed as to their emotional and intellectual contents. Special sections are devoted to the relationships between feelings and their intellectual basis, to feelings of activity, and to superimposition of feelings.—*K. F. Muenzinger* (Colorado).

2139. **Voivenel, P. Sur la timidité et le trac.** (On timidity and stage-fright.) *Vie méd.*, 1930, **2**, 479–485.—The author chooses to keep away from the question of disease and discusses the topic as a part of psychology, not of medicine. He first makes a differentiation between stage-fright and timidity. Stage-fright is only a physical difficulty of emotional and intellectual origin which inhibits the faculties of immediate adaptation and makes the victim confused. Timidity, on the other hand, is a constant intimidation. Stage-fright affects not only the constitutionally timid but also normal people. Stage-fright occupies the same place in relation to timidity as panic does in relation to fear. The author views the different methods of treatment for timidity and stage-fright. He says that it is necessary, insofar as one can, to modify the constitution of the timid, to educate the reflexes in order to obtain rapid adaptation to social needs (he calls this "immediatism"), and to give the victims confidence in themselves.—*Math. H. Piéron* (Sorbonne).

**[See also abstracts 2502, 2594.]**

## ATTENTION, MEMORY AND THOUGHT

2140. **Bowers, H. Memory and mental imagery.** *Brit. J. Psychol.*, 1931, **21**, 271–282.—It appeared that the establishment, in an earlier experiment, of a fairly constant order of precedence of certain words in respect of the imagery aroused by them in a given group of subjects, afforded a new approach to the problem of the influence of imagery on memory. A list of 143 monosyllabic words whose concomitant imagery was likely to be visual was read in certain orders to groups of subjects who were then required to reproduce them. Auditory and kinesthetic words were also employed. After reproducing the lists the subjects were required to rate the imagery aroused by each word; thus the "mean image" for each word was known and from these figures coefficients of correlation were calculated. It was found that (1) a small but significant correlation existed between the numbers of times visual and kinesthetic words were remembered and the imagery claimed for them, (2) in the case of auditory imagery the corresponding coefficient was zero, (3) decrease of association between the words did not appreciably effect the coefficient, (4) the coefficient for words in the first third of the reproduction list was no higher than for words in the last third of the list, (5) the earlier relative constancy of imaginal content for visual and auditory words was confirmed, (6) a similar relationship existed in the case of kinesthetic words.—*M. Drury-Smith* (Cambridge, England).

2141. **Earle, F. M. Tests of distributed attention: an investigation into the differences between tests which appear to measure certain aspects of distributed attention.** *Brit. J. Psychol.*, 1931, **21**, 215–241.—The aim of this investigation was to see whether the psychologist could discover any individual differences in regard to attention that might be of service to vocational guidance. As far as possible complicating factors such as special knowledge and bodily dexterities were eliminated in the tests used. They were devised with particular reference to (1) the measurement of the intensity of the attention of the individual to a single object (which was not too complex) by the efficiency of the resulting cognitions, (2) the measurement of the ability of the individual to maintain a succession of attentions to a number of objects, independently of any automatisms needed for success. In both cases the objects were apprehended visually. In the case of the first test the kind of attention required was similar to that necessary in the inspecting processes in a factory. The second test was devised largely in order to pick out persons likely to become flurried under comparatively simple conditions. Two supplementary tests were used as checks. The results from these experiments seemed to show small resemblances between tasks requiring for their successful performance a high intensity of attention and those in which the succession of attentions was within the individual's own control. These resemblances seemed to correspond to the influence of a "g" factor. There were marked differences between tasks requiring a rapid succession of attentions or a succession outside the control of the individual. The general conclusion was that specific factors were large in distributed attention, because the task called for some special adaptation of knowledge, acquired skill or sensory or muscular equipment, because of individual variations in sensory acuity and muscular adaptability, because of differences between the individuals' natural rate and the rate required by the task, and because the rate of change of attention differed from task to task.—*M. Drury-Smith* (Cambridge, England).

2142. **Eaton, R. M. General logic. An introductory survey.** New York: Scribner, 1931. Fp.

xii + 630. $3.00.—The author presents a discussion of the Aristotelian tradition, of mathematical logic, and of induction. A number of problems and exercises are appended.—*N. L. Munn* (Pittsburgh).

2143. **Leonhardt, C. Beitrag zur psychologischen Beweisführung in Ansehung existenzstreitiger Vorgänge.** (Psychological evidence in case of doubtful events.) *Arch. f. d. ges. Psychol.*, 1930, 78, 95–102.—If in a trial in court repeated instructions in regard to the nature of the oath bring out consistent symptoms of a conflict of conscience, then these symptoms are probably genuine, i.e., the witness is not telling the truth. Exceptions to this rule may occur.—*K. F. Muenzinger* (Colorado).

2144. **Peterson, J., & Allison, L. W. Effects of visual exposure on the rate and reliability of stylus-maze learning.** *J. Gen. Psychol.*, 1930, 4, 36–48.—A stylus maze was used, and 60 college women who served as subjects were divided into four groups of 15 each, a control group (O) and three experimental groups (1, 2, and 3), all of equal ability on the Alpha test. "The subjects all learned when blindfolded to trace a complex stylus maze under slightly different conditions for each group. Group O had no direct visual aid whatever, while Groups 1, 2, and 3 were allowed 5 seconds, 10 seconds, and 20 seconds, respectively, of visual exposure just before each trial. The experimental groups, by the method of correlating total errors in odd with total errors in even trials, show marked increases in reliability over the control group (.75, .87, and .87, for 5-, 10-, and 20-second exposures, respectively, as compared with .48). Visual exposure also resulted in marked reductions in the difficulty of learning. A complex high relief T-maze standardized for optimum visual exposure periods would doubtless make a very satisfactory maze-learning experiment for humans."—*H. Cason* (Wisconsin).

2145. **Thorndike, E. L. Human learning.** New York: Century, 1931. Pp. 206. $2.25.—In this volume the author presents, in the form of lectures, many of the results of his recent experiments. A number of experiments in which frequency of the situation alone was involved, showed that little, if any, actual learning took place. As the author says, "Experience, in the sense of merely confronting and responding to the situations of life, can hardly be a powerful agent for either good or harm when several thousand repetitions of such an experience do so little." Experiments devised to test the influence of the frequency of occurrence of a connection showed that "belonging" was necessary if learning were to take place. "Repetition of a connection in the sense of the mere sequence of the two things in time has . . . very, very little power, perhaps none, as a cause of learning. Belonging is necessary. Even when supplemented by belongingness and acceptability it is weak, and seems to need something more to help it account for learning." Other experiments showed that the essential principle was that of "annoyingness" or "satisfyingness." When satisfiers or annoyers were present in the situation learning was apparent. The author suggests that the words "right" or "wrong," or reward or punishment, have a direct influence upon the formation of new connections between situation and response. The explanation is in terms of analogous connections between neurones. "The connections formed between situation and response are represented by connections between neurones whereby the disturbance, or neural current, arising in one set of neurones is connected to another set across their synapses. The strength or weakness of a connection means the greater or less likelihood that the same current will be conducted from the former to the latter rather than to some other place." Further experiments demonstrated the fact that there is little connection devoid of organization. The systems and organizations, however, "are themselves constituted out of connections." A chapter on conditioned reflexes and learning stresses the differences between the two. The author's conclusion is that the conditioned reflex is not "the prototype of learning in general." Concerning Gestalt theory and learning the author points out, in the first place, that the atomistic conception of learning criticized by the Gestalt psychologists "seems as unnecessary and fantastic to an associationist or connectionist of today as it does to Wertheimer, Köhler, Koffka, or Ogden." He confesses that he does not understand what the Gestalt psychology is driving at, unless it is attempting insidiously to introduce vitalism into psychology. Thorndike feels that many of the criticisms by the Gestalt psychologists have been well taken, but that they present "a challenge to show a better theory of organization within the situation-response sequence" rather than a command to substitute closure or *Prägnanz*. "The facts which they explain seem explainable nearly or quite as well by varied reaction guided by the satisfyingness of the results attained, and this seems far simpler and more in accord with what the neurones are and can do." In the chapters on ideational learning, and thinking and reasoning, the author shows that the same principles apply. The only difference between ideational and other kinds of learning is one of complexity. The final chapter deals with the evolution of learning in recent times. "The evolution of learning has been toward learning more things and truer things, and also (at least recently) toward learning equally difficult things more quickly and pleasantly."—*N. L. Munn* (Pittsburgh).

2146. **Von Diersburg, E. R. Eine Theorie der Fehlleistung bei Platon.** (A theory of slips in Plato.) *Psychoanal. Bewegung*, 1930, 2, 587–589.—This is a comparison of the two descriptions of the soul appearing in Plato's *Theaetetus* (33–37), the one representing it as a waxen plate upon which perceptions are imprinted, the other designating it as a dove-cote, whose inmates represent the images. The former is a passive picture, the latter dynamic and therefore nearer to the truth. The former fails to recognize the conscious self as a factor, and is opposed to the Aristotelian teleological conception. Socrates explains memory and forgetfulness according to the picture he draws. Some doves (ideas) are tame, easily caught, others are wild, eluding the one

who tries to catch them. Forgetfulness lies in trapping the wrong dove, substituting another idea for the one desired.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 2487, 2506, 2509.]

## NERVOUS SYSTEM

2147. **Adrian, E. D., & Umrath, K. The impulse discharge from the Pacinian corpuscle.** *J. Physiol.*, 1929, **68**, 139–154.—(*Biol. Abst.* IV: 27493).

2148. **Allers, R., & Hochstädt, O. Über die Angriffsorte des Cocains im Zentralnervensystem.** (The mode of action of cocaine on the central nervous system.) *Zsch. Ges. exper. Med.*, 1928, **59**, 359–368.—(*Biol. Abst.* IV: 27553).

2149. **Bito, F. Beiträge zur Histologie der Hirnnervenwurzeln bei ihren Ein- oder Austrittstellen.** (The histology of the cranial nerve roots at their entrance and exit.) *Okayama Igakkwai Zasshi*, 1927, **445**.—(*Biol. Abst.* V: 2507).

2150. **Boeke, J. Die morphologische Grundlage der sympathischen Innervation der quergestreiften Muskelfasern.** (Morphological basis for sympathetic innervation of striped muscle-fibers.) *Jahrb. Morph. u. mikrosk. Anat., Abt. 2, Zsch. mikrosk.-anat. Forsch.*, 1927, **8**, 561–639.—(*Biol. Abst.* V: 2535).

2151. **Cahane, T. O nota asupra localizarilor motrice a nucleului marelui hypoglos.** (Motor localization in the hypoglossal center.) *Rev. med.-chir. iasi.*, 1926, **37**, 53–56.—(*Biol. Abst.* V: 2537).

2152. **Crowe, S. J. Anatomic changes in the labyrinth secondary to cerebellopontile and brain stem tumors.** *Arch. Surg.*, 1929, **18**, 982–991.—(*Biol. Abst.* V: 1330).

2153. **Denny-Brown, D. E., & Sherrington, C. S. Subliminal fringe in spinal flexion.** *J. Physiol.*, 1928, **66**, 175–180.—(*Biol. Abst.* IV: 27506).

2154. **Dusser de Barenne, J. G. Animal psychology. On a release-phenomenon in electrical stimulation of the "motor" cerebral cortex.** *Science*, 1931, **73**, 213–214.—The author finds that by inducing a functional block in the area surrounding a motor point on the cerebral cortex by using 1% novocaine solution the excitability of the point is increased. First the threshold is determined by faradic current of a constant intensity, then the functional block is induced and the same stimulus used to test the effects of the block on the motor point. The increased excitability is determined by the increased response of the animal. Novocainization of the point in question produced hypo-excitability. The author believes that the explanation of the phenomenon cannot be found in the theory of cortical facilitation of Exner, but rather by the release phenomenon of Hughlings Jackson and Head. "The excitability of a small area of the cortex is augmented when it is released from the influence of the surrounding areas." Circumcision of the motor point produces hypo-excitability. Cats, dogs and monkeys were used.—*C. V. Hudgins* (Clark).

2155. **Endres, G. Über ungleiches Verhalten der afferenten Hautnerven bei der Stammvertaubung.** (Differential behavior of afferent cutaneous nerve fibers in narcosis of the trunk.) *Zsch. Biol.*, 1929, **88**, 561–572.—(*Biol. Abst.* IV: 27508).

2156. **Hall, J. L. The sodium-calcium balance as a function of nerve excitability and cell permeability.** *Trans. Kans. Acad. Sci.*, 1929, **32**, 26.—Abstract.—(*Biol. Abst.* IV: 27515).

2157. **Hamada, I. Morphologische Studien über die Nervenendigungen der Augenmuskeln.** (Morphology of nerve endings in the eye muscles.) *Kyoto Furitsu Ikwa Daigaku Zasshi*, 1928, **3**, 45–82.—(*Biol. Abst.* V: 2546).

2158. **Hosi, T. Über die Nervenendigungen in den Herzmuskeln.** (Nerve endings in heart muscles.) *Tohoku, Igaku Zasshi*, 1926, **9**.—(*Biol. Abst.* V: 2551).

2159. **Hunter, W. S. A consideration of Lashley's theory of the equipotentiality of cerebral action.** *J. Gen. Psychol.*, 1930, **3**, 455–468.—"Lashley's theory of the equipotentiality of cerebral action is not justified by the known facts concerning the sensory control of the maze habit. A brief history of the experiments bearing upon this latter topic is given, and the conclusion is reached that the maze habit is essentially controlled by a multiplicity of stimuli rather than by a central neural engram as Lashley and Ball unjustifiably infer. Attention is called to the fact that Lashley's theory rests almost exclusively upon data gathered from the maze habit and that the theory fails to harmonize the results secured from this habit with those secured from the visual discrimination habit."—*H. Cason* (Wisconsin).

2160. **Ingvar, S. Studies in neurology. I. The phylogenetic continuity of the central nervous system. II. On cerebellar function.** *Bull. Johns Hopkins Hosp.*, 1928, **43**, 315–337.—(*Biol. Abst.* V: 2552).

2161. **Kappers, C. U. A. Over het gewicht der hersenschors bij Nederlanders en Chineezen, en die asymmetrie der hemispheren.** (Weight of cortex and asymmetry of hemispheres in Dutchmen and Chinese.) *Psychiat. en Neur. Bladen*, 1926, 48–56.—(*Biol. Abst.* V: 2553).

2162. **Lloyd, W. D. M. Paths from the periphery.** *Canadian Med. Assoc. J.*, 1928, **19**, 192–197.—(*Biol. Abst.* V: 2557).

2163. **Luna, E. Le radici sensitive del VII, IX, X paio ed i loro rapporti cel cervelletto.** (The sensory roots of the VII, IX, and X nerves and their relation to the cerebellum.) *Boll. Soc. Ital. Biol. Sperim.*, 1927, **2**, 209–211.—(*Biol. Abst.* V: 2558).

2164. **Marcu, I. Further evidence for the existence of depressor fibres in sensory nerves.** *J. Physiol.*, 1929, **67**, 36–38.—(*Biol. Abst.* IV: 27522).

2165. **Nayrac, P., & Patoir, —. Histoire anatomo-clinique d'un anencéphale. (Remarques sur l'origine des mouvements athétosiques.)** (Athetosic movements in an anencephalic monster.) *Rev. neur.*, 1929, **36**, 439–446.—(*Biol. Abst.* IV: 27526).

2166. **Regnier, J. Action de chlorhydrate de cocaine sur les troncs nerveux. Comparaison de l'action sur les fibres sensitives et l'action sur les fibres motrices.** (Action of chlorohydrate of cocaine on the nerve trunks. Comparison of its action on the sensory fibers with its action on the motor fibers.) *Bull. des sciences pharm.*, 1929, **36**, 401–407.—In frogs, Regnier finds the anesthetic properties of cocaine 15 times as powerful on afferent nerve fibers as on efferent.—(*Biol. Abst.* IV: 27806).

2167. **Smith, G. E. The brains of apes and men.** (Wilde Memorial Lecture.) *Mem. & Proc. Manchester Lit. & Phil. Soc.*, 1927–1928, **11**, 87–104.—(*Biol. Abst.* V: 2574).

2168. **Steinach, E. Ein Reizstoff des Centralorgans und die centrale Funktion.** (A stimulant of central organ and central function). *Med. Klin.*, 1929, **25**, 1273–1276.—(*Biol. Abst.* IV: 27412).

2169. **Strong, O. S. Unsolved problems suggested by cerebellar connections and cerebellar histology.** *Arch. Neur. & Psychiat.*, 1928, **19**, 1–30.—(*Biol. Abst.* IV: 27543).

2170. **Taga, K. Zur Frage der Existenz von Blickzentren im Mittel- und Zwischenhirn.** (The existence of visual centers in the midbrain and interbrain.) *Pflüg. Arch. Ges. Physiol.*, 1929, **223**, 116–119.—(*Biol. Abst.* IV: 27544).

2171. **Wachholder, K. Die allgemeinen physiologischen Grundlagen der Neurologie. I. Allgemeine Physiologie der Reizung und Erregung.** (General physiological principles of neurology. I. General physiology of stimulation and excitation.) *Fortsch. Neur. u. Psychiat.*, 1929, **1**, 301–312.—(*Biol. Abst.* IV: 27546).

2172. **Zand, N. Les olives inférieures, centres de la station verticale.** (The inferior olives as centers of erect posture.) *Arch. mus. hist. nat.*, 1927, **2**, 169–178.—(*Biol. Abst.* IV: 27549).

**[See also abstracts 2096, 2104, 2124, 2136, 2180, 2193, 2195, 2197, 2213, 2217, 2229, 2233, 2312, 2339, 2355, 2356, 2367.]**

## MOTOR PHENOMENA AND ACTION

2173. **Azuma, Y., & Hill, L. Effects of ultra-violet radiation upon involuntary muscle, and the supposed physiological interference of visible rays.** *Proc. Roy. Soc. London B*, 1926, **99**, 221–229.—(*Biol. Abst.* V: 593).

2174. **Basler, A. Über die gewöhnliche Schrittlänge und Geschwindigkeit bei einigen Formen des Gehens.** (The usual length of step and velocity in several kinds of walking (Canton Chinese).) *Arbeitsphysiol.*, 1929, **1**, 271–277.—(*Biol. Abst.* V: 1121).

2175. **Beltran, R. Étude de la réflectivité vestibulaire après le ligature de l'artère vertébrale.** (Does ligation of the vertebral artery modify the vestibular reflex?) *Rev. laryngol. otol. et rhinol.*, 1929, **50**, 219–225.—(*Biol. Abst.* IV: 27498).

2176. **Bremer, F. The tonus and contracture of skeletal muscles.** *Arch. Surg.*, 1929, **18**, 1463–1490.—(*Biol. Abst.* V: 1123).

2177. **Briscoe, G. A class experiment in reciprocal contraction of antagonistic muscles.** *J. Physiol.*, 1930, **68**, 19–20.—(*Biol. Abst.* V: 1124).

2178. **Cannon, W. B., & Bacq, Z. M. Studies on the conditions of activity in endocrine organs. XXVI. A hormone produced by sympathetic action on smooth muscle.** *Amer. J. Physiol.*, 1931, **96**, 392–412.—"In a cat with heart denervated, adrenals and liver excluded from action, and spinal cord severed in the mid-thoracic region, stimulation of the sympathetic supply to the smooth muscle of the tail hairs causes, for about two minutes, a gradual increase in blood pressure, a gradual increase of heart rate, and a gradual increase of salivary secretion. The time relations of the increase and the slow return to the former state are, in each instance, similar to those reported for the denervated heart alone as a consequence of emotional excitement. If the blood flowing into and from the legs and tail is hindered, the phenomenon is much reduced or is delayed until the flow is restored. Since the only tissue known to be affected by sympathetic stimulation at the base of the tail or on the mesenteric arteries is smooth muscle, since the only connection between the hind part of the animal and the responding denervated organs in the fore part is the blood stream, and since interfering with the stream in the region where smooth muscle is stimulated either markedly depresses or abolishes the response, the inferences are drawn that a substance is given off from smooth muscle into the blood, that it is carried effectively by the blood to distant organs, and that it influences those organs in a favorable manner, i.e., as sympathetic impulses would influence them. Because the properties just mentioned are those of a hormone, we regard the substance given off by smooth muscle, when affected by sympathetic impulses, as a hormone. The substance arises not only from pilomotor muscles, but also from the smooth muscles of the intestine, and the bladder and uterus. Because the substance is derived from structures under sympathetic control, when they are influenced by sympathetic impulses, we suggest that it be called sympathin. Sympathin is given off from the smooth muscle of the tail and can increase the heart rate after ergotamine has prevented sympathetic impulses from causing erection of the tail hairs. The bearing of these observations on those of Loewi and others on the humoral transmission of nerve impulses, the support which the observations bring to some early views of Elliott, and the possible relations of sympathin and adrenin, are considered in the discussion."—*C. Landis* (N. Y. Psychiatric Institute).

2179. **Cathcart, E. P. Conditioned reflexes.** *Glasgow Med. J.*, 1928, **110**, 65–75.—(*Biol. Abst.* V: 1074).

2180. **Cords, R. Nystagmus nach Schadeltrauma.** (Nystagmus after skull injury.) *Klin. Monatsbl. f. Augenhk.*, 1929, **83**, 180–194.—(*Biol. Abst.* V: 27503).

2181. **Dolgin, P. Die optimale Kontraktionsgeschwindigkeit kleiner Muskeln.** (The optimum speed

of contraction of small muscles.) *Arbeitsphysiol.*, 1929, **2**, 205–214.—(*Biol. Abst.* V: 1127).

2182. **Dolgin, P., & Lehmann, G. Ein Beitrag zur Physiologie der statischen Arbeit.** (A contribution to the physiology of static work.) *Arbeitsphysiol.*, 1929, **2**, 248–252.—(*Biol. Abst.* V: 1128).

2183. **Dworkin, S. Insulin and heart rate after sympathectomy and vagotomy.** *Amer. J. Physiol.*, 1931, **96**, 311–320.—"The action upon the heart rate of hypoglycemia-inducing doses of insulin was tested in normal cats, and in cats surviving excision of portions of the autonomic nervous system. The following changes may occur: (1) acceleration, due to central sympathicoadrenal impulses; (2) slowing, due to central vagus stimulation; (3) slowing, due to a peripheral action. In the intact animal these effects are expressed in a heart rate that is seldom above the basal level. The inference is that, while both divisions of the autonomic nervous system may be stimulated during insulin hypoglycemia, it is the vagus influence that predominates in organs that are innervated by both sets of nerves. . . . In completely sympathectomized cats with the heart denervated insulin has a delayed action upon the heart rate, manifested in a prolonged, though not marked slowing. This slowing develops gradually, attaining the maximum long after the lowest blood sugar level has been reached, and some time after injection of glucose. Injected without previous insulin administration, glucose has no definite effect on heart rate in these animals. The slowing can be promptly abolished by atropine sulphate."—*C. Landis* (N. Y. Psychiatric Institute).

2184. **Fabre, P. Excitation musculaire directe par les courants progressifs.** (Direct excitation of muscles by progressively increasing currents.) *Compt. rend. acad. sci.*, 1928, **186**, 400–401.—(*Biol. Abst.* V: 1134).

2185. **Fabre, P. Comparaison des paramètres d'excitabilité musculaire par examen microscopique des réponses.** (Comparison of the parameters of muscular excitability by microscopic observation of the responses.) *Compt. rend. acad. sci.*, 1928, **186**, 1150–1151.—(*Biol. Abst.* V: 1133).

2186. **Farkas, G., Geldrich, J., & Szäkall, A. Über den Energieumsatz beim Ernten.** (The energy expenditure in harvesting.) *Arbeitsphysiol.*, 1929, **1**, 466–479.—(*Biol. Abst.* V: 1135).

2187. **Freeman, G. L. The galvanic phenomenon and conditioned responses.** *J. Gen. Psychol.*, 1930, **3**, 529–539.—Two short experiments seem to indicate the practicability of using the galvanic phenomenon as an indicator of conditioned responses in human subjects. Expectation is the psychological correlate of the type of conditioned response recorded.—*H. Cason* (Wisconsin).

2188. **Gallenga, R. Sopra un riflesso palpebrale da stimolazione del nervo laringeo superiore. Nota preliminare.** (Palpebral reflex from stimulation of the superior laryngeal nerve.) *Ateneo Parmense*, 1929, **1**, 585–589.—(*Biol. Abst.* IV: 27510).

2189. **Gildemeister, M. Zur Theorie des elektrischen Reizes.** (Concerning the theory of electrical stimulation.) *Ber. Verhandl. Sächsischen Akad. Wiss. Leipzig*, 1927, **79**, 172–179.—(*Biol. Abst.* IV: 27511).

2190. **Hoff, H., & Wermer, P. Über psychische Beeinflussung der Tätigkeit des Hypophysenhinterlappens.** (Psychic influences on the activity of the posterior lobe of the hypophysis.) *Arch. exper. Pathol. u. Pharmakol.*, 1928, **133**, 97–102.—(*Biol. Abst.* V: 910).

2191. **Jokl, E. Beiträge zur Physiologie des Laufens und Hürdenlaufens.** (Contributions to the physiology of running and of hurdle running.) *Arbeitsphysiol.*, 1929, **1**, 296–305.—(*Biol. Abst.* V: 1140).

2192. **Kommerell, B. Die Schaufelarbeit in gebückter Haltung. Arbeitsphysiologische Studie.** (Studies in the physiology of work. The work [energy expenditure] of shovelling in a stooping position.) *Arbeitsphysiol.*, 1929, **1**, 278–295.—(*Biol. Abst.* V: 1142).

2193. **Kura, N. Morphologische Studien über die Innervation der Skelettmuskeln.** (Innervation of skeletal muscle.) *Kyoto Furitsu Ikwa Daigaku Zasshi*, 1928, **2**, 285–308.—(*Biol. Abst.* V: 2555).

2194. **Kurosawa, T. Extero- und proprioceptiver Ursprung des Rumpfdrehreflexes.** (Exteroceptive and proprioceptive origin of the trunk-turning reflex.) *Pflüg. Arch. f. d. ges. Physiol.*, 1929, **223**, 113–115.—(*Biol. Abst.* IV: 27518).

2195. **Magnus-Alsleben, E. Über den Einfluss des Sympathikus auf die willkürliche Muskulatur.** (Influence of the sympathetic on voluntary musculature.) *Verhandl. Phys.-Med. Gesell. Würzburg*, 1927, **52**, 150–152.—(*Biol. Abst.* IV: 27521).

2196. **Marx, H. Diuresis by conditioned reflex.** *Amer. J. Physiol.*, 1931, **96**, 356–362.—In these experiments with dogs, reflex diuresis was obtained as a response to psychological conditions. The results indicate the importance of cerebral mechanisms in the regulation of diuresis and afford an additional physiological response for use in investigating conditioned reflexes.—*C. Landis* (N. Y. Psychiatric Institute).

2197. **McSwiney, B. A., & Robson, J. M. The response of smooth muscle to stimulation of the vagus nerve.** *J. Physiol.*, 1929, **68**, 124–131.—(*Biol. Abst.* V: 1144).

2198. **Meyers, I. L. Electronystagmography. A graphic study of the action currents in nystagmus.** *Arch. Neur. & Psychiat.*, 1929, **21**, 901–918.—(*Biol. Abst.* V: 4217).

2199. **Morhardt, P. E. Les réflexes conditionnels dans les névroses et les états allergiques.** (Conditioned reflexes in neuroses and allergic states.) *Vie méd.*, 1930, **2**, 825–829.—The author believes that the phenomena of idiosyncrasy and allergy must play a large part in the category of conditioned reflexes.—*Math. H. Piéron* (Sorbonne).

2200. **Newton, H. F., Zwemer, R. L., & Cannon, W. B. Studies on the conditions of activity in endocrine organs. XXV. The mystery of emotional acceleration of the denervated heart after exclusion of known humoral accelerators.** *Amer. J. Physiol.*, 1931, **96**, 377–391.—"After complete denervation of the heart and exclusion of all known humoral cardio-accelerator agencies a momentary excitement and struggle will cause, in cats, a slow increase of the cardiac rate, reaching a maximum in about three minutes and then slowly subsiding. Repeated struggles cause summation of effects on the heart rate. Full anesthesia greatly reduces and may abolish the phenomenon, i.e., stimulation of muscles and the sympathetic system under anesthesia does not produce the typical effect on the heart rate. Experiments are described which show that the phenomenon is not due to rise of arterial blood pressure, increase of temperature, escape of adrenin from the denervated adrenal medulla or cortex, or from the liver, nor due to substances produced by the pancreas, gastro-intestinal mucosa, semilunar ganglia, pituitary body, male gonads, thyroids, parathyroids or active skeletal muscles. Transection of the thoracic spinal cord in the prepared cat leaves the fore part of the animal with the denervated heart, and the hind part with the denervated adrenal and liver, but with the lower abdominal sympathetic strands still intact. Struggle by the fore part of the animal is without effect; stimulation of the spinal cord in the lumbar region, causing muscular spasm and erection of the tail hairs, is followed by the typical slow rise and fall in the rate of the denervated heart. Obviously a substance is given off into the blood-stream by the hind part of the animal that affects the heart in the fore part. If all parts of the sympathetic system are disconnected from the spinal cord, except short ganglionated strands in the lower thorax, struggle causes the usual cardiac acceleration; but after the remnants of the system are excised, struggle no longer has that effect. This condition may last for many weeks."—*C. Landis* (N. Y. Psychiatric Institute).

2201. **Ohm, J. Über die Beziehungen zwischen Augenzittern der Bergleute und vestibular Drehnystagmus.** (The relation between miners' nystagmus and vestibular nystagmus due to rotation.) *Zsch. Hals.- Nasen- u. Ohrenhk.*, 1929, **23**, 153–170. —(*Biol. Abst.* IV: 27483).

2202. **Ojemann, R. H. Studies in handedness: III. Relation of handedness to speech.** *J. Educ. Psychol.*, 1931, **22**, 120–126.—Data from 23 cases show that "in training a left-handed individual to write with the right hand, the handedness of the subject is not a sufficient condition to produce a speech disturbance. It appears to be the exception rather than the rule for a speech disturbance to be produced by training left-handed individuals to write with the right hand." It would be possible, of course, that in such training other factors might be introduced which would produce a speech disturbance.—*J. A. McGeoch* (Missouri).

2203. **Pottenger, F. M. Über Lungenreflexe. (Mit einem Vorschlag zu deren Einteilung.)** (Pulmonary reflexes and their classification.) *Zschr. Ges. exper. Med.*, 1929, **68**, 316–336.—(*Biol. Abst.* IV: 27531).

2204. **Rechnitzer, E., Rosenblüth, E., & Wassermann, S. Über nervöse Atemstörungen.** (Nervous respiratory disturbances.) *Zsch. klin. med.*, 1929, **109**, 613–635.—(*Biol. Abst.* IV: 28177).

2205. **Reid, C. Studies on the behaviour of limb muscles and nerves during experimental ischaemia.** *Quar. J. Exper. Physiol.*, 1928, **19**, 127–143.—(*Biol. Abst.* V: 1147).

2206. **Salmon, A. Nouvelles observations cliniques et expérimentales sur les mouvements automatiques qui suivent les efforts musculaires volontaires.** (Clinical and experimental observations on the automatic movements which follow voluntary muscular effort.) *Rev. neur.*, 1929, **36**, 428–437.—(*Biol. Abst.* IV: 27535).

2207. **Schaltenbrand, G. The development of human motility and motor disturbances.** *Arch. Neur. & Psychiat.*, 1928, **20**, 720–730.—(*Biol. Abst.* V: 1150).

2208. **Schaltenbrand, G. Zur Pathologie der Stellreflexe.** (Pathology of postural reflexes.) *Dtsch. Zsch. Nervenhk.*, 1928, **105**, 133–176.—(*Biol. Abst.* IV: 27536).

2209. **Tilton, J. P. Volume measurement as an aid to the study of body build.** *J. Genet. Psychol.*, 1930, **37**, 536–540.—Actual measurements of water displacements upon immersion of different sections of the body showed that volume measurements parallel quite closely the weight measurements; this is taken to substantiate Bardeen's index for height-weight ratios.—*J. F. Dashiell* (North Carolina).

2210. **Tiumjanseff, N. F. Kann man beim Studium des Drehnystagmus die Wechselbeziehung zwischen den Ampullen und der Drehachse umgehen?** (Can one in the study of rotation nystagmus shift the correlation between the ampullae and the axis of rotation?) *Monatssch. f. Ohrenhk.*, 1929, **63**, 1203–1207.—(*Biol. Abst.* IV: 27489).

2211. **Von Hahn, F. V. Kolloidchemische Harnuntersuchungen. VII. Die Oberflächenaktivität des Harns in Abhängigkeit von körperlicher Anstrengung und seelischer Aufregung.** (Colloid chemical researches on urine. VII. Surface activity of urine in relation to body strain and mental excitement.) *Biochem. Zsch.*, 1929, **215**, 106–114.—(*Biol. Abst.* V: 998).

2212. **Walter, H. Experimentelle Skoliosen des Schädels und der Wirbelsäule.** (Experimental scoliosis of the skull and vertebral column.) *Arch. Klin. Chir.*, 1929, **157**, 167–168.—Rotation of young rabbits caused a compensatory permanent twisting of the head. Rabbits were rotated 7 hrs. a day with a speed of 1/3 turn per sec., at a distance of 1.5 m. from the center of turning.—(*Biol. Abst.* V: 1094).

2213. **Wilkinson, H. J. The innervation of striated muscle.** *Med. J. Australia*, 1929, **2**, 768–792.—(*Biol. Abst.* V: 2580).

[**See also abstracts 2079, 2133, 2137, 2150, 2157, 2158, 2172, 2214, 2262, 2303, 2312, 2320, 2322, 2328, 2329, 2343, 2451, 2491, 2508.**]

## PLANT AND ANIMAL BEHAVIOR

2214. **Asimoff, G. Bedingte Reflexe bei thyreodektomierten Tieren. I.** (Conditioned reflexes in thyreodectomized animals.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, **220**, 350–355.—(*Biol. Abst.* IV: 27494).

2215. **Barnes, T. C. Body posture and geotropic response in the ant *Aphaenogaster fulva*.** *J. Gen. Psychol.*, 1930, **3**, 540–547.—"The progressive rise in the geotropic response of the ant *Aphaenogaster fulva* tested on a constant angle of inclination of the substratum is not due to postural changes of the legs. A number of body postures are described and their tropistic significance is discussed in reference to results given in earlier papers."—*H. Cason* (Wisconsin).

2216. **Barnes, T. C., & Skinner, B. F. The progressive increase in the geotropic response of the ant *Aphaenogaster*.** *J. Gen. Psychol.*, 1930, **4**, 102–112.—"Workers of the ant *Aphaenogaster fulva* exhibit a progressive increase in the extent of their geotropic response on an inclined surface. This and several other modifications of the $\theta$ angle of geotropic orientation are shown to be generated by physiological causes which may be experimentally controlled."—*H. Cason* (Wisconsin).

2217. **Beck, E. Das Hörzentrum des Schimpansen in seinem myelo-architektonischen Aufbau.** (The myelo-architectonic structure of the auditory center of the chimpanzee.) *J. Psychol. u. Neur.*, 1928, **36**, 325–349.—(*Biol. Abst.* V: 2533).

2218. **Blanchard, F. N. The stimulus to the breeding migration of the spotted salamander *Ambystoma maculatum* (Shaw).** *Amer. Nat.*, 1930, **64**, 154–167.—(*Biol. Abst.* V: 219).

2219. **Bose, J. C. Die Pflanzen-Schrift und ihre Offenbarungen.** (Plant autographs and their revelations.) Zürich-Leipzig: Rotapfel, 1929. Pp. 271. M. 6.40.—*R. R. Willoughby* (Clark).

2220. **Boulenger, E. G. Observations on the nocturnal behaviour of certain inhabitants of the society's aquarium.** *Proc. Zool. Soc. London*, 1929, 1929, 359–362.—(*Biol. Abst.* V: 1072).

2221. **Breeder, C. M., Jr. Certain effects in the habits of schooling fishes, as based on the observation of *Jenkinsia*.** *Amer. Mus. Novitates*, 1929, **382**, 1–5.—(*Biol. Abst.* V: 1073).

2222. **Bremer, H. Über die tageszeitliche Konstanz im Schlüpftermine der Imagines einiger Insekten und ihre experimentelle Beeinflussbarkeit.** (Factors influencing the time of day insects emerge.) *Zsch. Wiss. Insektenbiol.*, 1926, **21**, 209–216.—(*Biol. Abst.* V: 1813).

2223. **Bryk, F. Zwei kleine entomologische Skizzen aus Ostafrika. 1. Instinkt oder Intelligenz. 2. Über das Auftreten einer Mutation von *Papilio phorcas* mit Rückschlags-Geäder auf Mount Elgon.** (Two small entomological sketches from East Africa. 1. Instinct or intelligence. 2. A mutation of *P. phorcas* with reduced venation from Mt. Elgon.) *Zool. Anz.*, 1927, **74**, 75–76.—(*Biol. Abst.* V: 3270).

2224. **Bünning, E. Untersuchungen über die Seismoreaktionen von Staubgefässen und Narben.** (Seismic reactions of stamens and stigmas.) *Zsch. Bot.*, 1929, **21**, 465–536.—(*Biol. Abst.* IV: 26930).

2225. **Campos, R. F. Los efectos del humo de tabaco en un cientopiés del género *Scutigera* (*Scutigera forceps?*).** (The effect of tobacco smoke on a centipede of the genus *Scutigera*.) *Rev. Colegio Nacion. Vicente Rocafuerte*, 1926, **8**, 37–39.—(*Biol. Abst.* V: 3067).

2226. **Corey, S. M. The relationship between compulsory physical exercise and the ability of the white rat to learn and relearn an elevated skeleton maze.** *J. Comp. Psychol.*, 1931, **11**, 291–318.—Using the split litter technique to control initial ability, an attempt was made to determine the relationship between compulsory physical exercise and learning ability. There were three experimental groups of 31 subjects each, which were forced to exercise one, three, and five hours per day respectively. Exercise was provided in a rotating wire cage electrically operated. The control groups were given no opportunity for exercise other than that provided by the nest cages. Learning ability was tested by having all subjects solve an eight cul-de-sac elevated maze of high reliability. The animals were tested for retention two weeks after original learning had been completed. The learning records of the control and exercised groups were compared with respect to: (1) error, trial, time, and active time scores, (2) variability of criterion scores, (3) location of errors, (4) tendency to repeat errors, (5) frequency and location of retracements, (6) speed of relearning, and (7) correlation between learning and relearning scores. Although the exercised subjects were slightly superior with respect to most of the criteria of speed of learning, their superiority was in no instance statistically significant. Compulsory physical exercise had no pronounced effect upon the ability of the white rat to learn or relearn an elevated skeleton maze under the conditions of this study.—*S. M. Corey* (Depauw).

2227. **Coronios, J. D. Preliminary note: technique for observing and motion-picture recording of fetal behavior (cat).** *J. Genet. Psychol.*, 1930, **37**, 544–545.—Superficial abdominal incision made upon the pregnant cat, decerebrated under deep anesthesia, permits shelling out of fetus without tension on umbilical cord into a saline solution, and direct observation of it.—*J. F. Dashiell* (North Carolina).

2228. **Crowell, M. F. A discussion of human and insect societies.** *Psyche*, 1929, **36**, 182–189.—(*Biol. Abst.* V: 221).

2229. **De Rényi, G. S. The structure of cells in tissues as revealed by microdissection. IV. Observations on neurofibrils in the living nervous tissue of the lobster (*Homarus americanus*).** *J. Comp. Neur.*, 1929, **48**, 441–457.—(*Biol. Abst.* V: 3773).

2230. **Dice, L. R. How do squirrels find buried nuts?** *J. Mammalogy*, 1927, **8**, 55.—(*Biol. Abst.* V: 222).

2231. **Dolley, W. L., Jr., & Wierda, J. L. Relative sensitivity to light in different parts of the compound eye in *Eristalis tenax*.** *J. Exper. Zool.*, 1929, **53**, 129–140.—(*Biol. Abst.* V: 1097).

2232. **Faber, A. Die Lautäusserungen der Orthopteren. (Lauterzeugung, Lautabwandlung und deren biologische Bedeutung, sowie Tonapparat der Geradflügler.) Vergleichende Untersuchungen. I.** (Tone utterances of Orthoptera. Sound production, sound variations and their biological significance, also the tone apparatus of Orthoptera. Comparative studies. I.) *Zsch. Wiss. Biol. Abt. A. Zsch. Morph. u. Ökol. Tiere.*, 1929, **13**, 745–803.—(*Biol. Abst.* V: 1078).

2233. **Fedele, M. Il sistema nervoso dei tunicati dal punto di vista morfologico e funzionale.** (The nervous system of the tunicates from the morphological and functional points of view.) *Atti Soc. Ital. Progr. Sci.*, 1928, **1927**, 554–556.—(*Biol. Abst.* V: 3388).

2234. **Fields, P. E. A reply to Munn concerning form discrimination.** *J. Genet. Psychol.*, 1930, **37**, 546–552.—*J. F. Dashiell* (North Carolina).

2235. **Focke, F. Die Raumorientierung von *Lumbricus*.** (Space orientation of *Lumbricus*.) *Zool. Anz., Suppl. Bd.*, 1929, **4**, 194–203.—(*Biol. Abst.* V: 1079).

2236. **Fraenkel, G. Die Grabbewegung der Soleniden.** (Digging movements of the Solenidae.) *Zsch. vergl. Physiol.*, 1927, **6**, 162–220.—(*Biol. Abst.* V: 2984).

2237. **Gengerelli, J. A. Studies in abstraction with the white rat.** *J. Genet. Psychol.*, 730, **38**, 171–202.—Rats were trained in divided groups to turn right or turn left, respectively, in a maze consisting of a straightaway and cross arms opened up at three different distances from the entrance point, these distances being varied in different successive series of runs for the same animals. After developing either the right-turning or the left-turning habit regardless of the distance from entrance to choice point, the animals were put through many modifications of this maze to test whether the habit would continue to operate when choice points were encountered as parts of different maze patterns (identical element with varying concomitants). The changes in pattern included addition of a second bifurcation, introduction of elbows in the path from the entrance, etc. Results showed strikingly that the rat is capable of certain generalized habits of a limited kind. A further line of research is suggested.—*J. F. Dashiell* (North Carolina).

2238. **Gicklhorn, J., & Keller, R. Neue Methoden der elektiven Vitalfärbung zwecks organspezifischer Differenzierung bei Wirbellosen. (Über den Bau, die Innervierung und Funktion der Riechstäbe von *Daphnia magna* M.)** (Selective vital staining by means of specific differentiation. (Structure, function, and innervation of the olfactory rods in *D. magna*.)) *Zsch. Wiss. Zool.*, 1926, **127**, 244–296.—(*Biol. Abst.* V: 4208).

2239. **Hempelmann, F. Frühformen der Gemeinschaft in der Tierwelt.** (Primitive forms of community in the animal world.) Berlin: Junker & Dünnhaupt, 1929. Pp. 23.—(*Biol. Abst.* V: 225).

2240. **Henry, G. W. Catatonia in birds.** *Psychiat. Quart.*, 1931, **5**, 68–81.—A state of intoxication resembling catatonia in many respects can be induced in birds, this author reports. In his experiments he injected bulbocapnine in doses varying from 5 to 10% of the body weight of the animal. His observations show that birds occupy in their catatonic manifestations an intermediate position between the mammals and those animals devoid of a neo-cortex. These experiments may be regarded as producing additional evidence of toxic factors in human catatonia. The article is illustrated and tables are given showing some of the detailed findings.—*E. T. Burr* (New York City).

2241. **Hermann, I. Zur Psychologie eines Gorilla-Kindes.** (The psychology of a gorilla-child.) *Psychoanal. Bewegung*, 1931, **3**, 38–40.—The article gives a brief statement of the studies made by Robert M. Yerkes of the gorilla "Congo," during two successive years, especially of the genito-sexual development.—*A. B. Herrig* (Michigan Central State Teachers College).

2242. **Herms, W. B. A field test of the effect of artificial light on the behavior of the codling moth, *Carpocapso pomonella* Linn.** *J. Econ. Ent.*, 1929, **22**, 78–88.—(*Biol. Abst.* V: 1815).

2243. **Heron, W. T. The test-retest reliability of rat learning scores from the multiple-T maze.** *J. Genet. Psychol.*, 1930., **38**, 101–113.—The multiple-T maze was used to furnish data comparable with those used by Stone and Nyswander [see II: 1822] in their calculations of coefficients of reliability. When using the same methods of calculation, confirmatory results were obtained. However, by correlating the scores made on one series of runs with those made on other series that were resumed after intervals of no practice (of 221, 175, and 20 days, respectively) only very low coefficients were obtainable. Reasons for this low test-retest reliability are suggested; but the fact itself is held to be important in considering the maze as an instrument for predicting individual ability. The data also show little consistency in reliability coefficients for the various alleys.—*J. F. Dashiell* (North Carolina).

2244. **Herter, K. Über Geotaxis und Phototaxis deutscher Egel.** (The geotaxis and phototaxis of leeches from Germany.) *Zool. Anz., Suppl. Bd.*, 1929, **4**, 72–82.—(*Biol. Abst.* V: 1080).

2245. **Hoffmann, H. Über den Fluchtreflex bei *Nassa*.** (The flight reflex of *Nassa*.) *Zool. Anz., Suppl. Bd.*, 1929, **4**, 112–118.—(*Biol. Abst.* V: 1081).

2246. **Houssay, B. A., Giusti, L., & Lascano-González, J. M. Implantación de la hipófisis y estimulación sexual en el sapo.** (Pituitary implantation and sexual stimulation in toads.) *Rev. Soc. Argent. Biol.*, 1929, **5**, 397–418.—(*Biol. Abst.* V: 912).

2247. **Hunter, W. S. A further consideration of the sensory control of the maze habit in the white rat.** *J. Genet. Psychol.*, 1930, **38**, 3–19.—With a double alternation elevated maze blind rats were trained to a point of mastery, and then were tested under certain changed conditions, including interchange of maze units, alterations in length of time and of false alleys, absence of buzzer, rotations of whole maze or of segments, etc., in 14 different combinations. The animals' performances were clearly disturbed by interchange of maze units and by rotation of the whole maze, and possibly by absence of buzzer, rotation of first maze unit, and lengthening of culs-de-sac. Dependence of the maze habit upon stimuli peculiar to the various units, and upon some stimuli from the extra-maze environment is thus demonstrated. It is argued that these results enlarge our conception of the multiple-stimulus control of maze behavior, and probably of all acts of skill; and that they reveal the inadequacy of Lashley and Ball's demonstration that the maze habit is controlled by a wholly central mechanism.—*J. F. Dashiell* (North Carolina).

2248. **Ilse, D. Über den Farbensinn der Tagfalter.** (Color sense of butterflies.) *Forsch. u. Fortschr.*, 1929, **5**, 397–398.—(*Biol. Abst.* V: 3304).

2249. **Just, G. Untersuchungen über Ortsbewegungsreaktionen. I. Das Wesen der phototaktischen Reaktionen von *Asterias rubens*** (Investigations on motility: the behavior of *Asterias rubens* under phototactic stimulation.) *Zsch. vergl. Physiol.*, 1927, **5**, 247–282.—(*Biol. Abst.* V: 1082).

2250. **Kellogg, W. N. Humanizing the ape.** *Psychol Rev.*, 1931, **38**, 160–176.—The interpretation of results from experiments with anthropoid apes to show the inferiority of these animals when compared to humans is spurious because (1) the training of the apes has seldom if ever been undertaken at an early enough age to prohibit their already having acquired many fundamental animal modes of reaction, and (2) the responses which the ape acquires when not the subject of investigation are largely overlooked in their effect upon his behavior both during and outside the periods of experimentation. If an experimental animal can learn laboratory tricks in one-eighth (or less) of his waking life, "must he not learn a very great deal in the other seven-eighths, even though no specific effort is made to motivate him by hunger or punishment?" Evidence is brought forward to show that if human children were confined in cages as are captive apes and were taken out for only an hour or two of experimentation daily, their behavior would probably not differ from that of anthropoids to any marked extent. The author proposes to rectify these errors by giving the ape the same environmental advantages that the human child enjoys. He suggests an experiment by means of which a human family adopt an anthropoid ape and raise it *from birth*, not as a pet, but in all respects exactly as a child. The experimental situation, par excellence, should be attained if the ape were taken into a human family which already possessed a young child of about the ape's age. Case studies of the two organisms raised under the same conditions would then be possible. Certainly the animal in these circumstances would acquire in a natural manner many human responses and it is even possible that it would develop human speech—at least in a rudimentary form. Should this not be the case, however, and the results of such a test prove predominantly negative, it would still be of scientific importance because only with environmental factors strictly controlled can valid comparisons be made between the behavior and abilities of ape and man.—*W. N. Kellogg* (Indiana).

2251. **Lashley, K. S. The mechanism of vision: I. A method for rapid analysis of pattern-vision in the rat.** *J. Genet. Psychol.*, 1930, **37**, 453–460.—By the method of requiring the animal to jump from a distance upon the stimulus pattern, discrimination of two visual patterns by the rat was established much more quickly than by the discrimination box method; and a surprising variety of such discriminations were so learned.—*J. F. Dashiell* (North Carolina).

2252. **Lashley, K. S. The mechanism of vision: II. The influence of cerebral lesions upon the threshold of discrimination for brightness in the rat.** *J. Genet. Psychol.*, 1930, **37**, 461–480.—Using the discrimination box method, tests were made of the influence of lesions in the visual areas of the cerebral cortex upon the ability of the rat to form habits of light discrimination. Earlier results were confirmed showing that the rate of formation of a discrimination between light and darkness is independent of the visual cortex. On the other hand, the formation of a habit of discriminating between two lights of unequal intensity was retarded in the absence of the visual cortex, the difference threshold being considerably higher. The degree of defect in discriminative ability is correlated with the extent of lesion within the visual area, but apparently is not related to the locus of lesion.—*J. F. Dashiell* (North Carolina).

2253. **Lashley, K. S. The mechanism of vision: III. The comparative visual acuity of pigmented and albino rats.** *J. Genet. Psychol.*, 1930, **37**, 481–484.—Using the jumping method, the threshold of discrimination was measured between vertical and horizontal black-white striations. The threshold of pigmented animals for objects 20 cm. distant is between 52′ and 26′ angular distance; and that of albinos is 2 to 4 times as high. The latter corresponds to the resolving power of the albino eye, as determined by direct measurements with two points of light imaged on the selera of the freshly excised eye. —*J. F. Dashiell* (North Carolina).

2254. **Leuba, C. J. Some comments on the first reports of the Columbia study of animal drives.** *J. Comp. Psychol.*, 1931, **11**, 275–279.—It is claimed

that to measure and compare the strength of various drives in the rat (sex, hunger, thirst, etc.) on the basis of the average number of crossings of an electric grid to the object of the drive (a rat of the opposite sex, food, water, etc.) in an arbitrary period of twenty minutes is misleading, because the number of crossings is not always evenly distributed throughout the twenty-minute period; sometimes it increases from the first to the last minute and sometimes it decreases. Hence the results are frequently merely a function of the length of the experimental period chosen.—*C. J. Leuba* (Antioch).

2255. **Liggett, J. R. A study of maze measures and of the factors involved in maze learning.** *J. Genet. Psychol.*, 1930, **38**, 78–90.—A sectional maze was used to provide learning data (time, excess time, speed, and errors) and the reliability coefficient for each of these measures was calculated on the basis of odd vs. even trials. The highest correlation was found for error scores ($.82 \pm .044$). A correlation of only .02 was found between total time and errors; and these are held to be unrelated factors in the learning.—*J. F. Dashiell* (North Carolina).

2256. **Macfarlane, D. A. The rôle of kinesthesis in maze learning.** *Univ. Calif. Publ. in Psychol.*, 1930, **4**, 277–305.—The author points out that, in order to study the influence of kinesthesis in maze learning, one must change nothing but kinesthesis. Watson and Carr, he claims, did not do this. In the present experiment the rats were taught to run through a maze in the ordinary way and later to swim through parts of the same maze. Animals that had learned to swim the maze were required to run it. The author contends that the substitution of running movements for swimming movements, and vice versa, definitely changes the kinesthetic pattern of activity and that, if kinesthesis is the essential factor in maze learning, the change should lead to disintegration of the habit. As a matter of fact, however, the change led to an insignificant rise in the error scores and to a rise in the time taken to traverse the maze. The latter fact is interpreted as proving that kinesthetic pattern of response did change. It is claimed that "we may speculate concerning the part played by kinesthesis in determining *how* the food box shall be reached, but we may safely deny it the power to tell the rat *where* he shall go to reach it." Bibliography.—*N. L. Munn* (Pittsburgh).

2257. **Maeterlinck, M. La vie des fourmis.** (The life of ants.) Paris: Bibliothèque Charpentier, 1930. Pp. 250. 12 fr.—After describing the life of bees and termites, the author concludes the trilogy by presenting the life of ants. After giving a historical sketch of those who have worked with these creatures, he tells how their city and nest are built, how they communicate with each other and how they orient themselves. He tells about the life of pastoral ants, mushroom and agricultural ants. He closes by declaring that the life of ants is incontestably superior to that of bees, which is precarious, subjugated and short; and to that of termites, which is fierce, wild, barbarous and merciless. A bibliography of one hundred scientific works completes the study.—*Math. H. Piéron* (Sorbonne).

2258. **McDougall, K. D., & McDougall, W. Insight and foresight in various animals—monkey, raccoons, rat, and wasp.** *J. Comp. Psychol.*, 1931, **11**, 237–273.—The authors present a number of experiments the results of which are interpreted in terms of foresight and insight. The experiments with the monkey and the raccoon involved a roundabout route to a bait. In each case the animal quickly discovered a method of overcoming or avoiding the obstacle. With the raccoons a puzzle box was also used. It was constructed so that a number of latches had to be manipulated in a certain order. The results of this experiment are summarized as follows: "In manipulating the latches, the raccoon is not simply making responses to various sense-stimuli. Rather each latch becomes to her a distinct object to be moved, and the actions (varying widely in nature on successive occasions) by means of which she opens the latches are means to an end (the opening of the lid and the securing of the food) which in some sense is anticipated and striven for. These actions in their combinations and sequences clearly imply insight into the relations of the latches and their rôle in hindering the opening of the lid, and insight limited and imperfect, it is true, but nevertheless playing an essential rôle in directing action." The data on rats were gathered from observations made during the course of the senior author's Lamarckian experiment. Here again the results were of a conative nature. The experiments with wasps consisted in disturbing the surroundings of the nest and noting the subsequent behavior of the wasp. The wasp's behavior was toward a removal of the disturbing condition. The authors claim that "these actions of the wasp, typically instinctive as they are in their general type, are only to be intelligibly interpreted as the expressions of a conative urge guided at every step by foresight of the result to be achieved and by insight into the relations of the materials dealt with at each step."—*N. L. Munn* (Pittsburgh).

2259. **Minnich, D. E. The chemical sense of insects.** *Quar. Rev. Biol.*, 1929, **4**, 100–112.—(*Biol. Abst.* V: 1110).

2260. **Munn, N. L. A note on Lashley's method for studying vision in the rat.** *J. Genet. Psychol.*, 1930, **37**, 528–530.—An independent series of trials on one rat verifies Lashley's results with the jumping method of testing discrimination of visual patterns. (See V: 2251.)—*J. F. Dashiell* (North Carolina).

2261. **Munn, N. L. An answer to Fields concening form discrimination.** *J. Genet. Psychol.*, 1930, **37**, 552–553.—*J. F. Dashiell* (North Carolina).

2262. **Nishihata, T. Beiträge zur Physiologie des Körpergleichgewichtes des Vogels. I. Lagereflexe. 2. Beugungsreflexe. 3. Reflexe der Lagesveränderung im Raume. 4. Halsreflex.** (Physiology of equilibrium in the bird. 1. Position reflexes. 2. Passive movement reflexes. 3. Reflexes of change of

position in space. 4. The neck reflex.) *Jibi Inkokwa Rinsho*, 1926, **19**, No. 4.—(*Biol. Abst.* IV: 27482).

2263. **Okada, M. On the action of electric current on fishes. II. Electrophobotaxis of fishes in a group.** *J. Imp. Fish. Inst.*, 1929, **25**, (1)-(11).—(*Biol. Abst.* V: 1087).

2264. **Pisek, A. Wuchsstoffe und Tropismen.** (Growth substances and tropisms.) *Oesterreich. Bot. Zsch.*, 1929, **78**, 168–186.—(*Biol. Abst.* IV: 26933).

2265. **Portielje, A. F. J. Zur Ethologie bezw. Psychologie von *Botaurus stellaris* L.** (The ethology of the bittern with particular reference to its psychology.) *Ardea*, 1926, **15**, 1–15.—(*Biol Abst.* V: 3525).

2266. **Portielje, A. F. J. Zur Ethologie bezw. Psychologie der Silbermöwe, *Larus argentatus argentatus* Pont.** (The ethology of the herring gull with particular reference to its psychology.) *Ardea*, 1928, **17**, 112–149.—(*Biol. Abst.* V: 3521).

2267. **Prankerd, T. L. Studies in the geotropism of Pteridophyta. IV. On specificity in gravi-perception.** *J. Linnean Soc. Lond. Bot.*, 1929, **48**, 317–336.—(*Biol. Abst.* IV: 26934).

2268. **Roaf, H. E. The absorption of light by the coloured globules in the retina of the domestic hen.** *Proc. Roy. Soc.* (*London*) *B*, 1929, **105**, 371–374.—(*Biol. Abst.* V: 4221).

2269. **Ruch, F. L. Food-reward vs. escape-from-water as conditions motivating learning in the white rat.** *J. Genet. Psychol.*, 1930, **38**, 127–145.—20 rats were trained in a multiple-T maze with the usual hunger motivation, while 19 in non-hungry condition were trained in the same maze partly filled with water, foreing them to swim their way through. The error learning curves for the two groups were of similar type, but a more rapid elimination of errors appeared for the hunger-motivated animals. Time records showed slower rate of running for the water group but not a slower rate of improvement. The difficulties of the respective blind alleys were about the same for the two groups. Consistency (reliability) coefficients for the two groups were of comparable magnitude. Greater variability was shown by the water group.—*J. F. Dashiell* (North Carolina).

2270. **Schassmann, W. Versuche zur direkten Bestimmung der Schwimmleistungen der Flussfische.** (A direct determination of the work performed by stream fish when swimming.) *Verhandl. Schweiz. Naturforsch. Ges.*, 1929, **110**, 162–163.—(*Biol. Abst.* V: 241).

2271. **Schjelderup-Ebbe, Th. Farben-, Helligkeits-, und Sättigungskontraste bei mitteleuropäischen Käfern.** (Contrasts of color, brightness and saturation in central European beetles.) *Arch. f. d. ges. Psychol.*, 1931, **78**, 571–573.—A list of central European beetles with a description of their contrasts in color, brightness and saturation. Contrasts are especially useful in sexual behavior and as warning signs in the case of poisonous beetles.—*K. F. Muenzinger* (Colorado).

2272. **Schlieper, C. Über die Helligkeitsverteilung im Spektrum bei verschiedenen Insekten.** (The distribution of brillianey in the spectrum, with reference to various insects.) *Zsch. vergl. Physiol.*, 1928, **8**, 281–288.—(*Biol. Abst.* V: 1091).

2273. **Spiegel, A. Biologische Beobachtungen an Javamakaken, *Macacus irus* F. Cuv. (*Cynomolgus* L.). Geburt und Entwicklung während der ersten Lebensmonate.** (Birth and development of the Java macaque during the first months.) *Zool. Anz.*, 1929, **81**, 45–65.—(*Biol. Abst.* V: 1061).

2274. **Stadler, H. Die Vogelstimmenforschung als Wissenschaft.** (The scientific study of bird voice.) *Verhandl. 6. Int. Ornith.-Kongress. Copenhagen*, 1929, **1926**, 338–357.—(*Biol. Abst.* V: 3543).

2275. **Stier, T. J. B. "Spontaneous activity" of mice.** *J. Gen. Psychol.*, 1930, **4**, 67–101.—"When every effort is made to eliminate excitation in the environment of a mouse, movements still occur—the so-called "spontaneous movements." These movements do not occur haphazardly, but with a definite form, namely, in regularly recurring surges of movement followed by periods of quiet; at constant temperature over intervals of observation lasting about two hours the periods of activity and of quiescence are of constant length, having a mean probable error, as percentage of the mean, of 5% for activity, of 10% for quiescence (at 21° C.). The mice are still poikilothermic at the age of two days; the frequency of activity cycles increases with temperature in the manner of a chemical reaction. When the average frequency of occurrence of activity periods is plotted according to the Arrhenius equation, the value of $\mu$ was found to be 25,300 calories. The duration of intervals of quiescence and of activity also changes as a function of temperature; when their reciprocals are plotted according to the Arrhenius equation, the value $\mu = 13{,}200$ is obtained for activity, $\mu = 30{,}900$ for quiescence. It is suggested as a working hypothesis that these different values indicate that at least two processes are responsible for control of activity and of quiescence. It is assumed that activity sults when the concentration of a substance $A$ is maintained above a threshold level. Quiescence begins when $A$ is reduced below this level, the velocity of the formation and of the removal being controlled by chemical changes. Mice 40 to 90 days of age show the same cyclonic occurrence of periods of activity as exhibited by the two-day-old mice. Variation from an assumed basic cycle occurs in multiples of 15 minutes for activity, in steps of 24 minutes for periods of quiescence. The mechanism controlling the "spontaneous" locomotor activity of mammals may have for its "center" the gastro-intestinal tract, since movements of the empty stomach are correlated with the incidence of bodily activity. Evidence collected from published accounts pertaining to spontaneous movements shows that movements of an intact animal are correlated with and determined by the vigorous "hunger contractions" of its empty stomach."—*H. Cason* (Wisconsin).

2276. **Storfer, A. J. Über psychoanalytische Tierpsychologie.** (Concerning a psychoanalytical animal psychology.) *Psychoanal. Bewegung*, 1931, 3, 40–52.—The author comments on the fact that little has been done by the psychoanalytic method in the study of animals. He calls attention to those studies that have been made in this field and quotes from them. The article is a resumé of contributions to animal psychology by Hermann, Freud, Köhler, and others, dealing especially with parallel findings in man and animals, as psychological analysis throws light upon them.—*A. B. Herrig* (Michigan Central State Teachers College).

2277. **Thomas, M. La fuite devant le danger et la simulation de la mort.** (Flight from danger and simulation of death.) *Ann. et Bull. Soc. Ent. Belgique*, 1928, **68**, 53–72.—(*Biol. Abst.* V: 1092).

2278. **Tirelli, M. Fenomeni tropici nelle larve di *Bombyx mori*.** (Tropisms in larvae of *Bombyx mori*.) *Atti R. Accad. Naz. Lincei, Rend. Cl. Sci. Fis., Mat. e Nat.*, 1929, **9**, 1043–1050.—(*Biol. Abst.* V: 1093).

2279. **Tolman, E. C., & Honzik, C. H. Degrees of hunger, reward and non-reward, and maze learning in rats.** *Univ. Calif. Publ. Psychol.*, 1930, **4**, 241–256.—Four groups of rats, hungry non-rewarded, less hungry rewarded, less hungry non-rewarded, and hungry rewarded, were trained to run a 14-unit T-maze. The results showed that hungry rewarded rats took less time and had fewer errors than the other groups. The less hungry non-rewarded rats made the poorest time and error scores. The time increased on successive trials. The other groups of rats showed approximately the same amount of learning. The authors summarize their results as follows: "Hunger and food reward, or in more general terms, drive and the possibility of its satisfaction, are the two factors which, when both are present, produce the most rapid learning. On the other hand, absence of both these factors causes the slowest learning. Lack of drive (hunger) with the presence of its normal satisfaction (food), and presence of drive (hunger) with absence of its satisfaction (food), as measured by the error curve, produced, under the conditions of this experiment, overt learning in approximately equal amounts." There is also a detailed analysis of the difficulty of the various blinds under the different conditions. Bibliography.—*N. L. Munn* (Pittsburgh).

2280. **Tolman, E. C., & Honzik, C. H. Introduction and removal of reward, and maze performance in rats.** *Univ. Calif. Publ. Psychol.*, 1930, **4**, 257–275.—Two groups of rats, one which ran the maze with reward, and one which ran the maze without reward, were tested to determine the influence upon the learning curve of a sudden removal, or a sudden introduction, of a food reward. The maze was a 14-unit T-maze. Reliability coefficients ranged from .876 to .965. When the food reward was removed from the maze the error scores and time scores of the rewarded rats showed a large increase. When reward was introduced into the maze the non-rewarded rats showed a large decrease in time and error scores. "The drop in the error curve for the group of rats that were rewarded on the eleventh day brought the curve significantly below the curve of a control group of rats that had been rewarded from the first. This suggests that latent learning may be more effective than overt learning." The relative difficulty of the various blinds shifted as a result of the introduction or removal of reward. The reliability of the maze was higher under reward than under non-reward conditions. Even under non-reward conditions, however, the reliability coefficients based on even-day versus odd-day scores in errors and time were all above .876 ± .024. Bibliography. —*N. L. Munn* (Pittsburgh).

2281. **Van Oordt, G. J., & Bol, C. J. A. C. Zum Orientierungsproblém der Vögel. Kastrationsversuche an Brieftauben.** (Orientation problem in birds. Castration experiment on carrier pigeons.) *Biol. Zentbl.*, 1929, **49**, 173–186.—(*Biol. Abst.* IV: 27484).

2282. **Vicari, E. M. Mode of inheritance of reaction time and degrees of learning in mice.** *J. Exper. Zool.*, 1929, **54**, 31–88.—(*Biol. Abst.* IV: 26609).

2283. **Walton, A. Visual cues in maze running by the albino rat.** *J. Genet. Psychol.*, 1930, **38**, 50–77.—Earlier descriptions of rat behavior have almost invariably minimized the visual factor. To determine whether vision might not serve as the sole guidance in maze learning, it was isolated by the use of a maze constructed so as to turn all olfactory, directional, tactual, and kinesthetic cues into false guides. The maze consisted essentially of six units of discrimination box type, interchanged from trial to trial and with the black-white signals within each unit also interchanged. The 10 rats learned the maze with a readiness comparing most favorably with the rate of learning of the standard "kinesthetic" mazes, and demonstrated their ability to build up a purely visual habit as the sole guide in maze running. In order to test the conventional theory that rats turn the maze running over to the internal muscular sense as soon as the pattern has been mastered, the animals were allowed, after the visual training, several series of runs in the maze now without any interchanges of sections or of signals. They did not abandon the visual habit in favor of any kinesthetic one built up by the repetitions of the same muscular acts in these series. It is concluded that: whichever habit is first well established, whether kinesthetic or visual, remains the predominant one; and the visual factor for albino rats in both learning and running the maze has probably been underestimated. —*J. F. Dashiell* (North Carolina).

2284. **Went, F. A. F. C. Les conceptions nouvelles sur les tropismes des plantes.** (New ideas concerning tropisms of plants.) *Rev. gen. des sci.*, 1930, **41**, 631–643.—General review of the modern works relating especially to phototropism, geotropism and autotropism. Researches by Fröeschel of Vienna, Blaauw of Utrecht, of Rutgers, Slerp, Seybold, Königsberger, Went, Jr., van Dillewijn, and de Dolk demonstrate with what care and minute-

ness it is necessary to measure the strength of the reaction, as well as the stimulus, in order to understand the laws of tropism and their reversal beyond the optimum stimulus.—*Math. H. Piéron* (Sorbonne).

2285. **Wunder, W. Sinnesphysiologische Untersuchungen an Knochenfischen.** (The physiology of sensation in the bony fishes.) *Jahresber. Schlesisch. Ges. Vaterländ. Cultur*, 1929, **101**, 33–55.—(*Biol. Abst.* V: 1118).

2286. **Ziegenspeck, H. Zur Theorie der Bewegungs- und Wachstumserscheinungen bei Pflanzen.** (The theory of growth and movement in plants.) *Bot. Arch. (Königsberg)*, 1928, **21**, 449–647.—(*Biol. Abst.* IV: 26935).

**[See also abstracts 2108, 2154, 2367.]**

## EVOLUTION AND HEREDITY

2287. **Blakeslee, A. F., & Banker, H. J. Identical twins as biological controls in educational and other human problems.** *Proc. Amer. Phil. Soc.*, 1930, **69**, 379–384.—(*Soc. Sci. Abst.* III: 1651).

2288. **Dayton, N. A. Difficulties in determining the inheritance of mental defect: The present definition.** *New Eng. J. Med.*, 1930, **203**, 73–76.—(*Soc. Sci. Abst.* III: 1611).

2289. **Rollins, W. A. The size of families of Harvard and Yale graduates.** *Harvard Grad. Mag.*, 1930, **39**, 172–175.—Collecting Harvard and Yale figures on surviving children per graduate from 1658 to 1904, the author finds a rise to 1700, a gradual decline to 1840, a sharp decline to 1897, and a slight rise thereafter. The author correlates the long decline of the 18th and 19th centuries with the increase of population and the standard of living, and the events since 1840 with the pressure from below exercised by the recent immigration and its more recent release.—*R. R. Willoughby* (Clark).

2290. **Sims, V. M. The influence of blood relationship and common environment on measured intelligence.** *J. Educ. Psychol.*, 1931, **22**, 56–65.—It is pointed out that the Chicago study of foster children did not eliminate environmental influences, since for five years the siblings had been subjected to a common environment. Sims compares "the correlation between the intelligence of pairs of siblings from the same home with the correlation between pairs of unrelated children, the unrelated pairs being equated with the sibling pairs on the basis of age, school attended, and home background." Group intelligence tests and the Sims Score Card for Socio-Economic Status were employed with 203 pairs of sibs and a like number of unrelated pairs. Siblings reared in the same home correlated in the neighborhood of 0.45; unrelated pairs correlated around 0.30. The measures used, and the implications of the results, are discussed.—*J. A. McGeoch* (Missouri).

2291. **Steggerda, M. Lack of scholastic interest.** *Eug. News*, 1931, **16**, 9.—A pedigree is presented in which 13 out of 14 in the second generation, and 6 out of 28 in the third generation, left school before the ninth grade. "Mental qualities are average; opportunities are excellent."—*R. K. White* (Stanford).

2292. **Sutherland, H. E. G. The relationship between I.Q. and size of family in the case of fatherless children.** *J. Genet. Psychol.*, 1930, **38**, 161–170.—Two groups of fatherless children, 123 and 724 in number (the former fatherless from birth), were compared with control groups. In both cases the average intelligence of the fatherless children was lower, and there was slightly less correlation between intelligence and size of family. The differences found are not as great as would be anticipated from a heredity theory alone.—*J. F. Dashiell* (North Carolina).

**[See also abstracts 2282, 2545.]**

## SPECIAL MENTAL CONDITIONS

2293. **[Anon.] Hermann Hesse über Pseudo-Psychoanalyse.** (Hermann Hesse on pseudo-psychoanalysis.) *Psychoanal. Bewegung*, 1931, **3**, 35–37.—The reviewer quotes an article in *Neue Rundschau*, December, 1930, by Hermann Hesse, on *The Psychology of the Half-Educated*. The article criticizes the pseudo-Freudian psychology and the prevailing dilettantism of literary criticism, which does not give due honor to the great contribution made by Freud in his psychoanalytic technic, which in the hands of any true psychologist is a highly scientific procedure.—*A. B. Herrig* (Michigan Central State Teachers College).

2294. **[Anon.] Psychoanalytische Tagung in Dresden.** (The Psychoanalytic Conference at Dresden, September 27–30, 1930.) *Psychoanal. Bewegung*, 1931, **3**, 85–92.—Characteristic of this conference was the fact that it made a wide appeal outside of the smaller circle of psychoanalysts. The article reviews briefly the papers presented, and the comments made upon the conference by the press and the psychological and medical journals. The wide applications possible for psychoanalysis are made apparent by the papers presented at this conference.—*A. B. Herrig* (Michigan Central State Teachers College).

2295. **Bachler, K. August Strindberg.** *Psychoanal. Bewegung*, 1930, **2**, 555–579.—A psychoanalytical study of the character of Strindberg, dealing with the period of his second marriage, his disappointment in not finding in Frida Uhl an incarnation of his mother-love, and his resulting impotence-fear and his woman-hatred. His third marriage again reveals impossibility of compatibility, because of this infantilism. In contrast with this mother-love there was a father-hatred that influenced his whole life in an inferiority-complex. By it can be explained Strindberg's life uncertainties and his religious outlook. His religious outlook is psychopathic, his ideal of God an embodiment of the power and authority he experienced in the father. This father-identification was complete and he never emancipated himself from it. Out of it grew his death-desire, escape from the struggle-hold of power through the gates of death to the mother-love. The

article analyzes Strindberg's hysteroid attacks, and regards his dying words "All is forgiven" as symbolic of the long struggle between mother-love and father-hatred.—*A. B. Herrig* (Michigan Central State Teachers College).

2296. **Benda, C. E. Das Unbewusste und der Aufbau des geistigen Welt.** (The unconscious and the structure of the spiritual world.) *Zentbl. f. Psychotherap.*, 1931, **4**, 7–19.—An attempt is made to determine what tasks psychoanalysis sets for modern science. Psychoanalysis may mean three things: (1) the psychotherapeutic method, which is the method of choice for a limited number of cases; (2) a special psychology which tries to assimilate the knowledge obtained through analyses; (3) a world outlook generalizing one aspect to cover the whole (where it is inapplicable). Only the second definition is admissible. Psychoanalysis is not a system; its findings are like archeological excavations. Freud only collected them. Jung was the first to bring system into them. He was to Freud as Plato to Socrates. Freud, like Columbus, had a fixed idea; he discovered the new land of the unconscious, but projected his own bias into it. This has been well discussed by Michaelis. The existence of the unconscious cannot be denied. The long debate about it begun ten years ago by Kretschmer and Bleuler (quoted at length by the author) is now continued by Bumke. The problem today is not to decide for or against psychoanalysis, but to develop a pneumatology which will solve the "spirit-soul problem" and envisage man in his entirety.—*M. A. M. Lee* (Chicago).

2297. **Bratt, I. Läkningens dynamik vid en psykoanalytisk kur.** (The dynamics of the healing process in a psychoanalytical cure.) *Svenska läkart.*, 1931, **28**, 138–149.—Based upon his experiences in psychoanalytical practice, the writer offers what he conceives as the inner progressive changes taking place during the successful psychoanalytical treatment. These may be summed up as follows: (1) The patient feels himself understood by the analyst and gets into rapport with him, because he trusts him. (2) This trust enables the feelings bound to the complexes to come to the surface—transference. Such feelings may be aggressive or sadistic (negative transference) or partly of an object-libido character (positive transference). (3) By this transference feelings and emotions get their full expression on the basis of the life-material which they have behind them. This life-material is set in motion, the old, buried conflicts, especially the Oedipus conflicts, are actualized and relived in dream or phantasy in such a way that the old resistance against the outeropping of the feelings is removed. This is a kind of healing-psychosis. (4) The libido, thus made free from the complexes, is carried over to the ego, is intellectually worked over, and is used for either satisfaction of instinctive cravings or sublimations. The ego is thereby widened and strengthened and has more ability than before to make successful repressions. (5) Through the work of analysis a new consciousness is created. Life-material which was formerly repressed is made conscious and reworked. (6) The result of all this, if the treatment is successful, is a reorganization of the mind, which involves mental health. In his practice Bratt finds confirmation of the basic points of view of Freud.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2298. **Christoffel, H. Psychoanalysis and medicine.** *Schweiz. med. Woch.*, 1930, **60**, 565–579.—(*Soc. Sci. Abst.* III: 1773).

2299. **De Sanctis, S. La regressione psichica.** (Psychic regression.) *Scientia*, 1931, **25**, 31–42.—Facts and experiments show that latent memories of the past are arranged in a more or less stratified form in the unconscious and that they possess dynamic force. One goes too far, however, in using phylogenetic regression or inherited familial regression in explaining abnormalities of behavior. There are so many present and recent factors superimposed that it is doubtful even how far one should depend upon infantile regression in such cases. Regression is an excellent and useful idea in illuminating and interpreting certain singular modes of deportment, but it is nothing more.—*R. G. Sherwood* (Redmond, Wash.).

2300. **De Saussure, R. Note sur la pluralite du sur-moi.** (Note on the plurality of the super-ego.) *Rev. fr. de psychanal.*, 1930–1931, **4**, 163–165.—Comment on the use of the term "super-ego" by Hesnard and Laforgue (same number of this journal.)—*D. E. Johannsen* (Rochester).

2301. **Ferenczi, S. Sur la technique psychoanalytique.** (On psychoanalytic technique.) *Rev. fr. de psychanal.*, 1929, **3**, 617–630.—In this discussion the Hungarian analyst takes up four types of problems which confront the analyst in the course of his work: (1) abuse, on the part of the patient, of the privilege of free association; (2) the handling of questions asked by the patient in the course of analysis; (3) the utilization of specific instances of generalities in the patient's experience; and (4) the analyst's problem of mastering his own countertransfer to the patient. In handling the first problem it is necessary to point out to the patient that he is unconsciously striving to hinder the course of analysis, with its uncomfortable but necessary exposures, when he brings up only superficial associations or none. Both patient and analyst must understand this mechanism of resistance before the analysis can proceed successfully. In regard to the patient's questions, it is of more importance to ascertain what prompted them than to answer them. When the question is a request for decision of a problem facing the patient he must be helped in so far as possible to answer it himself, though occasional intervention with active therapy may be needed. By insisting on specific instances when the patient makes general statements assurance is gained that the patient's real difficulty is being faced. The analyst must guard both against coldness on the one hand and against a too sympathetic identification with the patient on the other. The first error prevents the formation of the necessary transfer of the

patient's libido to the physician and the second error creates complications by making this transfer too strong, lasting, and exclusive. The analyst must maintain a fine balance between free, supple association and critical judgment.—*E. M. Pilpel* (New York City).

2302. **Freud, A. Introduction to psycho-analysis for teachers.** (Trans. by B. Low.) London: Allen & Unwin, 1931. Pp. 117. 3/6.—The lectures deal with infantile amnesia and the Oedipus complex; the infantile instinct-life; the latency period; the relation between psychoanalysis and pedagogy. They expound the recognized psychoanalytical doctrines on these topics in a simple and clear manner, and with numerous illustrations.—*F. C. Bartlett* (Cambridge, England).

2303. **Girndt, —. Die Ermittlung der Wirkungsstärke und Angriffspunkte narkotischer Substanzen mit Hilfe der Lage- und Bewegungsreaktionen.** (Ascertaining the effective strength and point of action of narcotic substances by means of postural and rotational reflexes.) *Arch. exper. Pathol. u. Pharmakol.*, 1929, **147**, 67.—(*Biol. Abst.* IV: 27512).

2304. **Graber, G. H. Zur Psychoanalyse des Fluchens.** (The psychoanalysis of cursing.) *Psychoanal. Bewegung*, 1931, **3**, 57–68.—The author holds that cursing has its origin in the primitive belief in the magic power of the word. It rests in the destruction-urge, in the aggressive tendency. Often the curse, although in appearance directed against another, is really a self-cursing, and has a cathartic value. He illustrates with a large number of cursing phrases from different languages.—*A. B. Herrig* (Michigan Central State Teachers College).

2305. **Hérenger, A. Goethe und Freud.** (Goethe and Freud.) *Psychoanal. Bewegung*, 1931, **3**, 19–31.—The author speaks of the Goethe Prize awarded to Freud for outstanding creative activity giving honor to the name of Goethe. He does not agree with others in thinking that Goethe gave evidence of insight into the psychoanalytic technic. He cites the cases of Plessner and of Caroline Herder, attributing their cures to the simpler method of friendly advice and of the confessional, which never reaches down into the subconscious. The author analyzes the work of Freud and emphasizes its far-reaching import, but does not hold that it is an outgrowth of Goethe's influence.—*A. B. Herrig* (Michigan Central State Teachers College).

2306. **Hesnard, A., & Laforgue, R. Les processus d'auto-punition en psychologie des névroses et des psychoses, en psychologie criminelle et en pathologie generale.** (The processes of self-punishment in the psychology of the neuroses and psychoses, in criminal psychology and in general pathology.) *Rev. fr. de psychanal.*, 1930–1931, **4**, 2–84.—This report makes no attempt at profound and original research; it seeks merely to report the present knowledge on the subject of self-punishment, and especially certain aspects capable of explaining the French psychoanalytical movement. A psychoanalytical case study with the analysis is given in detail. The part self-punishment plays in various neuroses and psychoses is summarized. Self-punishment as the basis for the development of morbid social relations, e.g., sexual perversions and crimes, is discussed.—*D. E. Johannsen* (Rochester).

2307. **Heyer, R. Bericht über C. G. Jungs analytisches Seminar.** (Report on C. G. Jung's analytic seminar.) *Zentbl. f. Psychotherap.*, 1931, **4**, 2–6.—Daily 2½-hour talks by Jung introduced discussions on the problems of transfer, the present-day Jew, and child psychology. Jung pointed out that it is only when the rational superstructure is torn down that the unconscious soul of man can perform its productive work. One must look within for truth as given in visual fantasy. This kind of fantasy is so habitually suppressed that it is difficult to revive, but the value of the "picture method" has been demonstrated through 16 years of experience. No intelligence is necessary, but merely a letting go, a passive subjection to the more undifferentiated functions, not unlike Indian yogi practice. Relationship to animals and nature must be regained. Fantasies then appear which lead the patient in a backward phylogenesis of the human spirit through the middle ages and antiquity and beyond until all forms are lost. Then a new structure of the house of life can begin, resulting in a new adjustment to society. For Jung the collective unconscious is not merely the receptacle of inacceptable items from consciousness, but the medium which joins mankind to all that ever lived and worked as culture, art or deep knowledge. The analyst must press deeper and deeper into this unconscious, not only to learn the symbols, but so to strengthen himself that he may better build that atmosphere in which the weak soul of the patient dares to unfold.—*M. A. M. Lee* (Chicago).

2308. **Hitschmann, E. Zur Psychologie des jüdischen Witzes.** (A contribution to the psychology of Jewish wit.) *Psychoanal. Bewegung*, 1930, **2**, 580–586.—This is an analysis of an article by Reik in *Imago* in 1929, being a psychoanalysis of the Jew's tendency to joke about himself. Reik sees in this self-joking both self-criticism and defense against the criticism of his oppressor. He lists a number of characteristics which become the basis of jokes and illustrates these. The author sees in the modern Jewish conflict between orthodoxy and the newer trend of thought a source of self-criticism which releases itself in this type of wit. He agrees with Reik in seeing in it a masochistic exhibition.—*A. B. Herrig* (Michigan Central State Teachers College).

2309. **Hitschmann, E. Eine "unverstandene Frau" der vorpsychoanalytischen Zeit.** (A misunderstood woman of the pre-psychoanalytic period.) *Psychoanal. Bewegung*, 1931, **3**, 78–80.—This article cites the unhappy life of Jane Welsh Carlyle, as revealed in her letters to her family. The author holds that psychoanalysis would have revealed the difficulty that made a life-long misunderstanding in her marital life, and would have rescued it for a happy relationship.—*A. B. Herrig* (Michigan Central State Teachers College).

2310. **Laforgue, R. Les mechanismes d'autopunition et leur influence sur le caractère de l'enfant.** *Rev. fr. de psychanal.*, 1929, 3, 735–745.—This is a description, from the psychoanalytic point of view, of the psychological mechanism of self-punishment, by which the neurotic individual attempts to escape from the guilt feelings which arise from a too rigid censorship of his conduct either by those in authority around him or by his own conscience. The psychoanalytic interpretation of these guilt feelings as rooted in the infantile sexual attitude toward the parents (Oedipus conflict) is briefly discussed, and the author then proceeds to show the different manifestations of the desire for self-punishment resulting from these conflicts which may appear in the child's everyday life. Among these neurotic manifestations are negativism, desire to provoke the teacher or parent, and apparent stupidity. The physical and mental pain and social distress resulting from such conduct are not only neurotic expiations relieving the pangs of conscience, but also in themselves provide masochistic pleasure which has a sexual tinge. Proper patience and understanding of these manifestations and wise aid for children suffering from them can be secured only through cooperation between the psychoanalyst and the teacher.—*E. M. Pilpel* (New York City).

2311. **Lazarev, P. P. O vliyanii alkoholya na adaptatsiyu i tsentry glaza pri perifericheskom zrenii.** (The effect of alcohol on adaptation and on the centers of the eye in peripheral vision.) *Doklady Akad. Nauk SSSR*, 1927, 8, 116–117.—(*Biol. Abst.* IV: 27724).

2312. **Lazarev, P. P. O deistvii alkoholya na tsentry zreniya, na nervy i na myshtsy.** (The effect of alcohol on the centers of vision, on nerves, and on muscles.) *Doklady Akad. Nauk SSSR*, 1927, 10, 150–151.—(*Biol. Abst.* IV: 27725).

2313. **Löwy, S. Zum Problem der Tagesreste.** (On the problem of the day remnant.) *Zentbl. f. Psychotherap.*, 1931, 4, 78–80.—Comparison of dreams reveals that in some patients the elements of their daily activity in profession or business are frequently present and in others only rarely appear. Examples are given of patients suffering from the same psychophysical disturbance—impotence—who use in dreams symbols derived from their trade, and of an electrician and a musician who dream only of sports or household affairs. Analysis of these cases shows that the latter do not like their calling. The libido is not sublimated into it, but rather is bound up with the avocation from which the dream symbols are derived. In this way dream content may furnish a new clue to the personality and its inner structure.—*M. A. M. Lee* (Chicago).

2314. **Mayer, F. Aus der psychoanalytischen Praxis.** (From psychoanalytic practice.) *Zentbl. f. Psychotherap.*, 1931, 4, 77–79.—In the sixth week of analysis a patient reported an anxiety dream. He was playing at draughts (*Dame*) with his father and could have beaten him, but hesitated and did not do so. The association given to *Dame* was *mother*. The patient had never heard of Freud or Greek mythology, so the Oedipus complex could not have been suggested to him. Does not this indicate more meaning in the dream than Bumke's "wind playing over the strings of the soul-instrument"?—*M. A. M. Lee* (Chicago).

2315. **Murray, C. D. A recent case of "dying together."** *Psychoanal. Rev.*, 1931, 18, 63–68.—An analysis of Harry Crosby, based upon newspaper accounts and his poetry (*Red Skeletons*, Paris; Edition Narcisse, 1927). The author follows Sadger and Jones in showing that the wish to die together is the same as the wish to lie and sleep together, and has as components homosexual, necrophilic and coprophilic tendencies, birth fantasies and vampirism. —*L. M. Hatfield* (Canton, Ill.).

2316. **Nachmansohn, M. Einige Bemerkungen zu Oswald Bumkes Vortrag "Über Psychoanalyse."** (Some remarks on Oswald Bumke's article "On Psychoanalysis.") *Zentbl. f. Psychotherap.*, 1931, 4, 19–25.—Bumke has attempted to discredit all of Freud's work by pointing out that it is unscientific. Granted that this is true, nevertheless Freud has begun a new epoch in psychotherapy. Certain arguments that Bumke uses are open to criticism as follows: Freud's psychic unconscious is objected to by Bumke as unproved by experience. As proof of a physical unconscious he cites the custom of scientists and physicians to regard the inactive engrams or residuum as physical. This type of unconscious is no more subject to direct experience than Freud's. Again, Freud does not recognize two egos, as Bumke claims. The ego is identified with consciousness and the id with the unconscious, but the ego expressly denies the id. Bumke does not consider evidence from hypnosis valid, yet it is surely permissible to study pathological events in order to throw light on the normal. The task of science should be to look for sources of error and ways of eliminating them. The subjective error is great in hypnosis, but it can be detected and controlled with the same certainty as in microscopy. Bumke's demand that the unconscious be directly proved in the normal waking state is unreasonable, since by its very nature it cannot be demonstrated unless consciousness is eliminated, as in sleep, hypnosis, hysteria or true inspirational states. Bumke's concept of the unconscious as composed of engrams does not account for their relative effectiveness, nor does his doctrine of unclear thoughts explain the heightened emotional tone associated with them. Bumke objects to Freud's interpretation of dreams, but it is more probable that such a biological necessity as sleep should be associated with a purposeful activity than that dreams should be meaningless. Bumke misunderstands Freud's censor, which is only a new picturesque name for the old concept of inhibition. Part of Bumke's unfavorable criticism rests therefore on a misunderstanding of Freud's teaching and part on inadmissable scientific postulates.—*M. A. M. Lee* (Chicago).

2317. **Newell, H. W. Differences in personalities in the surviving pair of identical triplets.** *Amer. J. Orthopsychiat.*, 1930, 1, 61–80.—The surviving pair

of one set of identical triplets were studied. School records, psychiatric examinations, intelligence and performance tests, as well as physical measurements, were used in the analysis. The author affirms that the factors of heredity, environment and training were ruled out and therefore the differences noted in the intellectual abilities of the two triplets can be attributed to an early illness in one of them, characterized by involvement of the left cerebral cortex. Differences in personality were attributed to the physical and intellectual differences incident to the illness and to the differences in parental care indirectly arising from the disease situation. Bibliography of 41 titles.—*C. W. Brown* (California).

2318. **Poos, F., & Santori, G. Die pupillomotorische und akkommodationsbeeinflussende Wirkung der autonomen Nervengifte bei relativ aufgehobener Blutkammerwasserschranke. (Sympathicus-lähmung.)** (The action of drugs affecting the autonomic nervous system upon the pupil and accommodation in the presence of a weakened barrier between blood and aqueous humor. (Sympathetic paralysis.)) *Graefes Arch. f. Ophth.*, 1929, **121**, 443–470.—(*Biol. Abst.* IV: 27487).

2319. **Radó, S. The psychical effects of intoxication: attempt at a psychoanalytical theory of drug addiction.** *Psychoanal. Rev.*, 1931, **18**, 69–84.—Intoxicants offer man help of two kinds: (1) providing an internal barrier against stimuli (analgesic, sedative, hypnotic, narcotic effects) and (2) strengthening the ego functions (stimulating effects); in both cases there is internal relief of the ego in the service of reality. Second, intoxicants offer man pleasure in the pharmacotoxic orgasm (intoxicating effects); in this case there is a subjugation of the ego by the id, and a destruction of its relations to reality. In analyzing the etiology of drug-taking the author develops the theory that an "alimentary orgasm" constituted the original form of the highest pleasure function, and from biological considerations we must assume its existence in even the lowest of the protista. The genital, with the oral zone acting as intermediary, has clearly won away the orgastic effect from the nutritional process. It is in the alimentary orgasm, with its psychical superstructure, that we find the specific fixation-point which produces the disposition to drug addiction. The vast scale of the pharmacotoxic orgasm (produced by drugs) has swallowed up the rudiments of the alimentary orgasm which acts as a pleasure premium to ensure nutrition and digestion. By discovering the pharmacotoxic orgasm man has played a trick on biology, and it may be that some day this form of orgasm will succeed in imitating the genital.—*L. M. Hatfield* (Canton, Ill.).

2320. **Rele, V. G. The mysterious Kundalini.** (2d ed.) Bombay: Taraporevala, 1929. Pp. 88. $2.50.—This book contains data relating to hypnotic control of autonomic functions.—(*Biol. Abst.* IV: 27534).

2321. **Roback, A. A. Personality, the crux of social intercourse.** Cambridge: Sci-Art, 1931. Pp. 144. $1.25.—A summary of definitions, types and descriptions of methods used in the study of personality. Differentiation is made between personality, temperament and character. Personality is defined as an integrative combination or configuration of all cognitive, affective, conative, and physical qualities. The affective and physical qualities are of greatest significance in social relationships. The different types of personalities are presented according to Jung's individualistic classification of introversion and extroversion and to Kretschmer's four-fold division of athletic, pyknic, leptosome, and dysplastic types. The four approaches to the study of personality are the behavioristic, which ascribes individual differences to conditioning; the psychoanalytic, emphasizing childhood experiences of an emotional nature; the constitutional, whereby personality is expressed in all behavior deviating from a rational standard; the psycho-diagnostic, which studies personality from external symptoms, graphology being the most reliable of such symptoms. Studies based on present personality tests have offered meager results. A bibliography of 128 references is given.—*C. Neet* (Clark).

2322. **Ross, E. L., & Fish, M. W. Response of vestibular apparatus to drugs.** *Ann. Otol., Rhinol. & Laryngol.*, 1929, **38**, 175–181.—(*Biol. Abst.* IV: 27811).

2323. **Schaeffer, A. Der Mensch und das Feuer.** (Man and fire.) *Psychoanal. Bewegung*, 1930, **2**, 537–539.—The author thinks that there is a relationship between enuresis and fire-dreams and incendiary tendencies. He claims enough cases to justify such a hypothesis and cites some of these.—*A. B. Herrig* (Michigan Central State Teachers College).

2324. **Schjelderup, K. Die Versuchungen der Asketen.** (Temptations of the ascetic.) *Psychoanal. Bewegung*, 1931, **3**, 69–77.—The history of asceticism shows a life-long struggle against the repressed urges of life. This effort at repression of natural bodily urges is often revealed in a fantasy life of indulgence, or of struggle with beings that appear as symbols of the urge. The article cites many illustrations from the lives of religious celibates in which the repressed urge rises in various forms, recognized as temptations for which penance must be done.—*A. B. Herrig* (Michigan Central State Teachers College).

2325. **Schottländer, F. Über Perspektive.** (Concerning perspective.) *Psychoanal. Bewegung*, 1931, **3**, 53–56.—If we assume that art is a self-expression, a wish-symbol, then, asks the author, how shall landscape painting and its perspective be explained? The great tragedy of life is the loss of Paradise through birth, and art offers the opportunity to think in symbolism of this paradisiac state. As the landscape painter idealizes the real, he expresses in this idealism a longing for the beauty that was, a wish fulfilment. In perspective there is something of the lost Paradise as it reaches into the distance, symbol of the unattainable. All perspective leads the thought to the horizon, to the distant unknown.

arousing the wish for the lost Paradise.—*A. B. Herrig* (Michigan Central State Teachers College).

2326. **Schroeder, T. Psycho-therapeutics: from art to science.** *Psychoanal. Rev.*, 1931, **18**, 37–56.—The development of psychoanalytic therapy from suggestion therapy is traced through the stages of the magic gesture, Christian cures, Mesmer, Dubois' re-education method, psychoanalysis using direct suggestion, and the association method using indirect suggestion to encourage psychogenetic discoveries. None of these forms of therapy implies a psychologic sublimation as distinguished from a social sublimation. The author outlines, as the next step in the development of psychoanalytic technique, an "evolutionary concept of changes in the subjective aspects of our intellectual methods." This implies an accurate concept of the conditions and process of psychologic maturing and leads the analysand to a better intellectual method for finding his solution. Such a concept must integrate all the materials of the descriptive psychologist with all the data of the genetic psychologist, and unify these into a description of a single process of subjective change. While the artist in psychology apparently relies upon unconsciously determined "intuitive" insight, or upon the logic of dialectic symbols, used according to some popularly acquired meaning of the words, the genetic psychologist who has reached the scientific stage of development uses a checked and corrected empathic insight, empathic understanding, retrospective and inductive introspection. The article is an elaboration of a formula received from William A. White while the author was being psychoanalyzed by him.—*L. M. Hatfield* (Canton, Ill.).

2327. **Schultz-Hencke, H. Ist die Psychoanalyse ein Dogma?** (Is psychoanalysis a dogma?) *Zentbl. f. Psychotherap.*, 1931, **4**, 25–32.—Why did Bumke make the mistake of calling psychoanalysis a dogma? No system of thought can be faultless in the beginning, and it is inevitable that in 40 years it will undergo much elaboration, modification and misunderstanding. It is unfair to attack isolated parts and imply that by so doing the whole structure is undermined. The first methods Freud used—introspection and history taking—were not new. Finding these unsatisfactory, he devised the free-association method. However open to criticism this technique may be, it does not make less valid the facts obtained by its means. It remains true that by association springs of action are discovered by the patient, not by the investigator, although often only the investigator is able to recognize them. As to the identity of these springs there is that general agreement between investigators in the field that is the criterion of truth of any judgment, in the absence of any reason to suspect intentional or unintentional deception. Without need for interpretation, Freud has thus described attitudes of hate, love, desire and other emotions in connections not hitherto suspected. These attitudes in later life are invariably preceded by typical experiences in early childhood. The latter are revived with increasing ease as psychoanalysis proceeds and are associated with a wealth of imagery. On these three demonstrable facts rests the basis of psychoanalysis: the realm of attitudes, the realm of childhood experience, the regular sequence between the two. This Bumke has wholly overlooked and has concerned himself with theoretical questions of secondary importance. Only as a final technique did Freud interpret signals to his patients and direct them toward early memories. His students, more confident than he, were quick to adopt this method as a practical short-cut. This suggests a dogmatic assumption of unproved theory, but apart from theory and interpretation psychoanalysis remains only a collection of products of introspection and recollection of the analyzed—a thoroughly undogmatic structure.—*M. A. M. Lee* (Chicago).

2328. **Scott, H. D. Hypnosis and the conditioned reflex.** *J. Gen. Psychol.*, 1930, **4**, 113–130.—Conditioned defense movements of the finger were set up more readily in the trance state than in the waking state. The condition which Pavlov calls hypnosis in dogs is not the same as hypnosis in humans. "Conditioned reflexes set up in the trance may be evoked in the succeeding waking state in spite of the fact that the subjects can recall nothing of the trance events, including the process of conditioning. The results show that the conditioned reflex is, at least to a considerable extent, free from the waking amnesic tendency ordinarily associated with trance events. It would tend to show that what is commonly termed post-hypnotic amnesia is not a total amnesia but is a temporary inhibition of the habit systems connected with motor speech which prevents the subject from being able to make a symbolic report of the activity, although he does re-enact the activity learned in the trance when the stimulus conditions are repeated."—*H. Cason* (Wisconsin).

2329. **Travis, L. E., & Dorsey, J. M. Effect of alcohol on the patellar tendon reflex time.** *Arch. Neur. & Psychiat.*, 1929, **21**, 613–624.—(*Biol. Abst.* IV: 27870).

2330. **Winterstein, A. Angst vor dem Neuen, Neugier und Langeweile.** (Fear of the new, curiosity and boredom.) *Psychoanal. Bewegung*, 1930, **2**, 540–554.—The author analyzes the avoidance tendency toward the new, with the accompanying problem of the urge of curiosity for the acceptance of the new. Many psychologists see in the separation of child from the mother at birth the inception of fear reactions. During the infant period there is identification of the objective with the subjective, the phenomenon of introjection. The projection of the outer world is met by acceptance as it resembles the comfort of the pre-natal state, or by resistance as it varies from it, and therein arises the pleasure-displeasure element. The child's sense of helplessness gives rise to fears. The new becomes a pleasure when the known is recognized in it. Thus in the non-pleasurable arises a fore-pleasure, leading to investigation. The author recognizes three phases in this progress: (1) the resistance phase, (2) the negative phase, (3) the acceptance phase.—*A. B. Herrig* (Michigan Central State Teachers College).

2331. **Zweig, S. Sigmund Freud und die Situation der Jahrhundertwende.** (Sigmund Freud and the situation at the turn of the century.) *Psychoanal. Bewegung*, 1931, **3**, 5–18.—The Freudian viewpoint, despite its pre-war opposition, has ramified into psychology until it is no longer distinguishable from it. The archaic attitude of the nineteenth century in relation to sex is difficult to explain in the light of the phenomenal progress of the century in industrial and intellectual lines. The author attributes it to the imperium of the intellect, the confidence in its ability to crush the lower instincts. He credits to Freud the world-wide revolution of thinking that has taken place, which will influence every field of human activity in the future. Due to his influence man has for the first time really come to understand himself and his fellowmen.—*A. B. Herrig* (Michigan Central State Teachers College).

**[See also abstracts 2166, 2276, 2353, 2360, 2375, 2392, 2428, 2429, 2431, 2485, 2490, 2497, 2499, 2504, 2507, 2514, 2521, 2522, 2579, 2594.]**

## NERVOUS AND MENTAL DISORDERS

2332. **Andrew, G. H. Outline of a postgraduate course in neuropsychiatric nursing.** *U. S. Vet. Bur. Med. Bull.*, 1930, **6**, 1082–1085.—A short account of the school for neuropsychiatric nursing held at the U. S. Veterans Hospital, Bronx, N. Y.—*C. M. Louttit* (Ohio).

2333. **[Anon.] The asylum environment.** *Brit. J. Med. Psychol.*, 1930, **10**, 344–364.—The object of this paper is to show, by the case history of the author, how the complete lack of treatment, coupled with the ordinary conditions which are supposed to be necessary in institutions for the safety of the patient, add greatly to the painfulness of the illness and work against recovery. The first fact the patient meets is the locked door and his first emotion is intense fear. Fear was frequently evoked in the author, both by the asylum environment and by the attitude of the staff, at just such times as she was beginning to get into contact with reality, and she was driven back into fantasy. The advance of psychology has changed the treatment of neurosis; why has it so little influenced the treatment of insanity? Is it because the neurotic can complain, while the psychotic cannot?—*E. M. Ligon* (Union).

2334. **[Anon.] The National Committee for Mental Hygiene.** *J. Juv. Res.*, 1931, **15**, 44–49.—A brief history is given of the growth of the mental hygiene movement and the rôle of the National Committee for Mental Hygiene in promoting this growth.—*H. L. Koch* (Chicago).

2335. **[Anon.] Problems of mental health. The present status of mental hygiene.** *Ment. Hygiene Bull.*, 1931, **9**, 1ff.—Mental health is defined as the adjustment of individuals to themselves and the world at large with a maximum of effectiveness, satisfactions, cheerfulness, and socially considerate behavior, and the ability to face and accept the realities of life. The numerical preponderance of the functional over the organic mental diseases is the great promise of mental hygiene. The goal of mental hygiene is the prevention of mental ill health and the building of healthy personalities to their highest potentialities. It is pointed out that there is great need for more and better care of the acute cases and an increase in the facilities of the out-patient departments. Especially should there be special provision for children and adolescents. The importance of the pre-school habit clinic is emphasized, and the great need for their extension. Since constructive prevention of mental ill health often rests more with adults in contact with children than with the children themselves, the teaching of the principles of mental hygiene should be a part of the training of the professional groups whose work brings them into private contact with large groups of children. Parental education is especially necessary. The schools should do their part in inculcating good principles of mental hygiene, but in the long run the parents are the most important teachers in this field.—*D. E. Johannsen* (Rochester).

2336. **Ash, W. M., Worth, R., & Potts, W. A. Mental deficiency and lunacy in relation to public health.** *Pub. Health (London)*, 1930, **43**, 345–355. —(*Soc. Sci. Abst.* III: 1734).

2337. **Bonaparte, M. De la prophylaxie infantile des névroses.** (The prevention of neuroses by prophylaxis in childhood.) *Rev. fr. de psychanal.*, 1930–1931, **4**, 85–135.—The neuroses are compared to tuberculosis in seriousness for the human race; it is pointed out that there is no such thing as a completely normal person, the border-line between neurotic and healthy minds being a variable and shifting one. There are no real standards of comparison, but despite this, evidence seems to point to a certain universality of the neuroses, regardless of race or culture. It is emphasized that the common attitude which denies the child all sexuality is quite erroneous, and Freud's analysis of the development of the child's sexuality is reviewed. The repression in the adult of certain phases of this erotism (e.g., anal erotism) because of convention is indicated. The author points out that the repression and redirecting of the libido which is forced on the human child is the basis of our culture as well as of the neuroses. The seriousness of the repression entailed by earlier methods of sexual education is emphasized; it is pointed out that the psychoanalytic method does not entail complete liberty for antisocial acts, but a rational control rather than repression of them. The education of the child regarding masturbation is felt to be the crucial point in the prophylaxis of the neuroses, since this is the child's only sexual activity. It is emphasized that in every field (religion, history, science, etc.), the education of the child should lay emphasis on reality.—*D. E. Johannsen* (Rochester).

2338. **Bouman, K. H. Alcohol as a mental-hygiene problem.** *Sci. Temperance J.*, 1930, **39**, 61–72. —(*Soc. Sci. Abst.* III: 3401).

2339. **Bremer, F. W. Funikuläre Spinalerkrankung.** (Diseases of the funicular tracts of the spinal cord.) *Fortschr. d. Neur. Psychiat. u. Grenzgeb.*, 1931, **3**, 12–18.—A review of the relevant literature

for the past year with a few titles of an earlier date. Most of the papers deal with problems of symptomatology. A bibliography of 21 titles is given.—*R. H. Waters* (Arkansas).

2340. **Bronfenbrenner, A. N. The Wassermann test in the feeble-minded.** *Psychiat. Quart.*, 1931, 5, 45–52.—The rôle of syphilis as an etiological factor of feeble-mindedness has been discussed repeatedly on the basis of statistical data concerning the Wassermann reaction. In a large institution for the feeble-minded the incidence of positive Wassermann tests amounts to 5% with about equal representation of strongly and weakly positive reactions. The incidence of positive Wassermann tests among feeble-minded children appears to be higher than among orphanage children of higher average mentality. The author concludes that statistics on the positive Wassermann reaction do not reflect adequately syphilogenic processes. He, therefore, feels that the Wassermann test statistics cannot be used by themselves for the evaluation of syphilis as a factor in the etiology of feeble-mindedness.—*E. T. Burr* (New York City).

2341. **Campana, G. L. Contribution à l'étude des états liés à l'hyperémotivité anxieuse.** (Contribution to the study of conditions related to anxious hyperemotionalism.) These de Doctorat de la Faculté de Médecine de Paris, 1930. Pp. 116.—Anxious hyperemotionalism can determine a certain number of vegetative disturbances without known organic lesions. It seems that in this hyperemotionalism there is a loss of mental control of emotional phenomena, at the same time that there is a state of diffused irritability in the neuro-vegetative, sympathetic, and parasympathetic systems. Bibliography of 60 items.—*Math. H. Piéron* (Sorbonne).

2342. **Crookshank, F. G. Organ-jargon.** *Brit. J. Med. Psychol.*, 1930, **10**, 295–311.—Organ-jargon is the term chosen by Adler to indicate disturbances of visceral functions, which reveal the intention of the whole individual. The author uses the term to refer to psycho-visceral correlations, which provide the true key to diagnosis. The immediate task is the study of the physical signs of psychosis and neurosis, on the one hand, and of the psychical signs and antecedents of physical states on the other. The imagined distinction between organic and functional disappears. Among the correlations between the physical and psychical suggested by the author are: pulmonary tuberculosis and discouragement, epilepsy and disappointment or renunciation, asthma and sexual disturbances, syphilis and fear, regret and remorse.—*E. M. Ligon* (Union).

2343. **Cuff, N. B. The relation of eyedness and handedness to psychopathic tendencies.** *J. Genet. Psychol.*, 1930, **37**, 530–536.—Three tests of eyedness, nine of handedness, and the Woodworth-Cady psychopathic questionnaire were given to 203 children in grades 2 to 8. Suggestive but inconclusive results were obtained.—*J. F. Dashiell* (North Carolina).

2344. **Davies, A. E. Psychiatry and abnormal psychology.** *Brit. J. Med. Psychol.*, 1930, **10**, 312–328.—In this paper, the author discusses the relations of abnormal psychology to psychiatry. Two groups of psychiatrists may be distinguished, the neurological psychiatrists who limit their observations to nervous lesions and the psychological psychiatrists who try to discover mental lesions also. The former feel it unnecessary to study psychology, and the latter easily excuse their ignorance of neurology. Medicine uses scientific results, it does not achieve them. Abnormal psychology is the science to which psychiatry must turn for its data. Abnormal psychology, however, has little chance of advancing unless the hospitals and asylums are thrown open to its students on equal terms and on the same conditions as to any other specialists. The medical profession in general must come to see that mental pathology has the same importance to mental disease that physical pathology has to physical disease.—*E. M. Ligon* (Union).

2345. **Davis, J. E. Attentive capacity of mentally ill as indicated in physical education.** *Occup. Therap. & Rehab.*, 1931, **10**, 22–29.—It is often difficult to get the patient's attention on the therapeutic activities. Rather primitive (phylogenetic) activities such as group contests, tug of war, etc., prove rather effective in evoking attention. Some psychotics show rather primitive emotions in these situations.—*H. E. Burtt* (Ohio State).

2346. **Dayton, N. A. Report of the division of mental deficiency.** Annual Report of the Commissioner of Mental Diseases (Mass.), P.D. 117, 1928. —Report of work of the travelling school clinic for the year ending Nov. 30, 1928. In the 6286 examinations given during 1928 approximately twice as many boys were examined as girls, but more girls were diagnosed as feeble-minded than boys. Of the 1.56% of the school population referred to the clinic, .67% were diagnosed as mentally defective, and .89% as retarded. School, population, number of special classes, number of children in special classes, are summarized in tables. Research and publications by the division during 1928 are listed. —*N. Goldman* (Clark).

2347. **Denser, C. H. The scope of the term "encephalitis."** *U. S. Vet. Bur. Med. Bull.*, 1930, **6**, 984–988.—There are two groups of cases, (1) the epidemic variety (so-called lethargic) and (2) all other varieties, which may be due to several different agents, e.g., chemical, toxic, traumatic, etc., and may involve various parts of the brain and spinal cord. Bibliography.—*C. M. Louttit* (Ohio).

2348. **Donaggio, A. Sulle forme molto tardive nel parkinsonismo encefalitico e sulla esistenza di una funzione psicomotoria extrapiramidale nella corteccia cerebrale frontale.** (A delayed form of encephalitic Parkinsonism, and the existence of an extra-pyramidal psychomotor function in the frontal cerebral cortex.) *Atti Soc. Ital. Progr. Sci.*, 1928, 1927, 565–568.—(*Biol. Abst.* V: 1410).

2349. **Ewald, G. Das manisch-depressive Irresein.** (Manic-depressive insanity.) *Fortschr. d. Neur. Psychiat. u. Grenzgeb.*, 1931, **3**, 31–43.—A review of

the literature for 1929–30 with a bibliography of 51 titles.—*R. H. Waters* (Arkansas).

2350. **Fernberger, S. W. The training of mental hygienists.** *Psychol. Clin.*, 1930, **19**, 137–142.—Mental hygiene is an art based upon the material of several other arts and sciences, as medicine, psychology, sociology, and education. One weakness of the movement is that its workers are trained each as a specialist in one or another of these disciplines, and they fail to understand each other's point of view. Another difficulty is that of agreeing upon what constitutes the normal and how this differs from the average. The normal constitutes a fairly wide range within which there are large individual differences. All cases falling outside this range are abnormal, the question of the boundaries of the range being ultimately a sociological one. Mental hygiene requires at least three kinds of workers: (1) diagnosticians, (2) corrective rehabilitators, (3) disseminators; these last to spread knowledge of mental hygiene in an attempt to anticipate deviation. The author does not find any existing group of workers who have fundamental training in *all* of the necessary sciences and arts.—*J. T. Metcalf* (Vermont).

2351. **Fox, C. Tests of aphasia.** *Brit. J. Psychol.*, 1931, **21**, 242–255.—In his work on aphasia Henry Head made use of a series of hand, eye and ear tests, the patient being required either to reproduce movements made by the physician, or to imitate movements shown to him in outline on a card. Fox's experiments were designed to ascertain whether such tests did in reality imply the use of language in any form, or whether inability to perform the movements correctly rested on some defect other than aphasia. His method of solving the problem was to try the tests on normal persons, and by means of their introspective evidence not only to evaluate the tests from the point of view of language but also to discover what defect in patients resulted in a failure to perform them. The subjects used were university graduates and schoolboys. Head's diagrams drawn to the size of a post-card were employed. The procedure adopted by the subjects may be divided into three methods, which Fox calls the automatic, the orientation of the diagram, and the orientation of the body methods. The results obtained did not bear out Head's contention that speech was essential to the process, which could not be performed without it, though they did justify the assumption that speech may be a part of the process used. In these cases speech appeared to be merely an incidental aid used only rarely. The writer, in consequence, is inclined to think that aphasia is a special case of a more general disturbance of function, possibly due, as Mourgue suggested, to "an inability to demarcate or differentiate, which shows itself in a lack of appreciation of spatial relationships," language being disturbed only because it involves such demarcation. Fox is concerned therefore for a more accurate differential diagnosis of aphasic varieties, and suggests that all the serial tests employed by Head should be standardized by being tried on school children. By assigning a mental age to every test it would be possible to discover the precise degree of defect from which different aphasics suffer, and to estimate the degree of restitution of function during recovery.—*M. Drury-Smith* (Cambridge, England).

2352. **Fuller, R. G. Readmissions in the hospital history of mental patients during eighteen years following first admission.** *Psychiat. Quart.*, 1931, **5**, 53–67.—This study notes what happened, so far as hospital records show, to the 11,050 mental patients who were admitted to the civil state hospitals of New York during two fiscal years ending September, 1911. To facilitate the study the patients were grouped by sex and psychosis, as well as by the number of times each was admitted to the hospital system. With each successive admission there is a higher rate of readmission, showing a tendency for repeaters to repeat further. A relation was found between readmission and chronicity, for an increasing proportion of patients remain in the hospital after each successive number of residences. The manic-depressive group has the highest rates of readmission, while the dementia praecox group revealed the largest number of cases staying in the hospital after each admission. At the end of the observation period, out of 1,000 patients among all the first admissions studied, 156 were still in the hospital, 422 had died, and 422 were discharged.—*E. T. Burr* (New York City).

2353. **Gardner, G. E. Evidences of homosexuality in one hundred and twenty unanalyzed cases with paranoid content.** *Psychoanal. Rev.*, 1931, **18**, 57–62.—A review of the literature shows that the psychoanalysis of many cases exhibiting delusions of persecution indicates that the bases of the delusions are the repressed homosexual trends of the patient. A survey of 120 unanalyzed cases exhibiting such delusions shows that in 45% of the cases there were evidences of such trends in the conscious behavior of the patients. Unanalyzed cases of paranoid dementia praecox exhibit such trends in a greater percentage of cases than do cases of diagnosed "paranoid condition." Bibliography.—*L. M. Hatfield* (Canton, Ill.).

2354. **Grimaud, J. La folie de Gérard de Nerval.** (The madness of Gerard of Nerval.) These de Doctorat, Faculté de médicine de Montpellier, 1930. Pp. 75.—The author, rejecting every hypothesis of degenerative psychopathy, gives the opinion that Gerard of Nerval was a superior degenerate afflicted with a double form of insanity. His disorder took in the three evolutionary stages of the paranoic state: a period of restlessness manifesting itself in superstition and delusional identification of the facts of inner and outer life, with disturbed cenesthesia, autoscopia, ideas of grandeur and self-accusation; a period of religious delusion; and, finally, delusion of ambition. A short bibliography at the close of the work.—*Math. H. Piéron* (Sorbonne).

2355. **Guttmann, E. Nichtsystematische Schädigungen des Rückenmarks, seiner Wurzeln und seiner Hüllen.** (Non-systematic injuries of the spinal cord, its roots and sheaths.) *Fortschr. d. Neur.*

*Psychiat. u. Grenzgeb.*, 1931, **3**, 19–30.—A review of the literature for 1929–30. The papers deal largely with problems of diagnosis. A bibliography of 70 papers is given.—*R. H. Waters* (Arkansas).

2356. **Hirschfeld, R. Jahresbericht über die gesamte Neurologie und Psychiatrie. Zugleich Fortsetzung der Bibliographie der Neurologie und Psychiatrie und bibliographisches Jahresregister des Zentralblattes für die gesamte Neurologie und Psychiatrie. Zehnter Jahrgang: Bericht über das Jahr** 1926. (Year's contributions in the fields of neurology and psychiatry.) Berlin: Springer, 1928. Pp. xv + 715. RM. 78.—(*Biol. Abst.* V: 2548).

2357. **Klemperer, E. Die Wirkung des Insulins beim Delirium tremens.** (The effect of insulin on delirium tremens.) *Monatsschr. Psychiat. & Neur.*, 1929, **74**, 163–220.—(*Biol. Abst.* V: 1235).

2358. **Leuba, J. Les actions dynamiques du psychisme sur le physique.** (The dynamic effects of the psychical upon the physical.) These de Doctorat de la Faculté de Médecine de Paris, 1930. Pp. 30.—The ignorance of the psychical origin of many bodily symptoms causes the majority of doctors to be deprived of the better part of their therapeutic effect. Knowledge of the psychic mechanisms which psychoanalysis has revealed is necessary to all doctors. No bibliography.—*Math. H. Piéron* (Sorbonne).

2359. **Lewin, S. Sobre la idiocia amaurotica de los niños judíos de la Rusia blanca.** (Amaurotic idiocy of Jewish children of White Russia.) *Arch. Argentinos neur.*, 1929–30, **5**, 66–83.—(*Biol. Abst.* IV: 26592).

2360. **Lorand, S. The morbid personality.** New York: Knopf, 1931. Pp. xxii + 181 + v. $3.00.—The book is divided into two parts, roughly corresponding to accounts of male and female character development respectively. The treatment is based upon five cases of each sex psychoanalyzed by the author. Orienting chapters are included on the psychoanalytic theory of early character development, with special reference to sex differences, and on technique. The types of adjustment in the male represented in the case material are impotence and homosexuality, indecision (masking sadism), narcissism, group inadequacy; and in the female, the wish-fulfilment and revenge (sadistic) types, hysteric and phobic anxiety, psychosexual infantilism, and fantastic and symbolic criminality (kleptomania). A. A. Brill contributes a foreword; there is a bibliography of 62 items.—*R. R. Willoughby* (Clark).

2361. **McCartney, J. L. Mental hygiene in a public health program.** *Amer. J. Pub. Health*, 1930, **20**, 943–953.—(*Soc. Sci. Abst.* III: 1778).

2362. **Morhardt, P. E. Maladies de la nutrition et psychismes.** (Diseases of nutrition and mental factors.) *Vie méd.*, 1930, **2**, 319–325.—There is a large class of predispositions in which emotional shocks are pathogenic in the sense that they aggravate their previous condition of vegetative imbalance. The author discusses especially the effect of mental factors on diabetes. No bibliography.—*Math. H. Piéron* (Sorbonne).

2363. **Mosby, G. L. Psychological factors in psychopaths.** *U. S. Vet. Bur. Med. Bull.*, 1930, **6**, 980–981.—There is a definite need for psychological study of psychopaths who do not have a complicating psychosis.—*C. M. Louttit* (Ohio).

2364. **Murphy, M. Two cases of probable post-encephalitis.** *Psychol. Clin.*, 1931, **19**, 163–167.—Two cases of boys, one 7 years old with an IQ of 67, the other 10 years old with an IQ of 89. Both present serious educational problems. The author believes them both to be cases of post-encephalitis. It is not known that either case suffered from epidemic encephalitis, though it was suspected in one case. The boys present a striking contrast as far as conduct is concerned, one being very well and the other very badly behaved. The author believes that many more children suffer from the sequelae of this disease than is commonly supposed.—*J. T. Metcalf* (Vermont).

2365. **Ortmann, H. "Linkskultur" mit Schwachsinnigen.** (Developing the left side of the feeble-minded.) *Zsch. f. Schulgesundheitspflege u. soz. Hygiene*, 1930, **43**, 377–382.—(*Soc. Sci. Abst.* III: 3349).

2366. **Peabody, R. R. Psychotherapeutic treatment of inebriates.** *Brit. J. Inebriety*, 1930, **28**, 55–60.—(*Soc. Sci. Abst.* III: 3411).

2367. **Pette, H. Ergebnisse tierexperimenteller Forschung auf dem Gebiete der akuten Infektionen des Zentralnervensystems.** (Results of experimental work with animals in the field of acute infections of the central nervous system.) *Fortschr. d. Neur. Psychiat. u. Grenzgeb.*, 1931, **3**, 1–11.—A review of the literature of the last five or six years with a few titles of an earlier date. The most important finding in the literature reviewed is that the cause of epidemic encephalitis is the same as that of herpes. The majority of the papers deal with the latter disease. A bibliography of 49 titles is given.—*R. H. Waters* (Arkansas).

2368. **Podall, H. C. Prognosis in mental diseases, with reference to extramural adjustments.** *U. S. Vet. Bur. Med. Bull.*, 1931, **7**, 39–49.—Discussion, with 24 case reports, of social adjustments of hospital patients. The catatonic type of dementia praecox has a better chance of adjustment than the hebephrenic. Adjustment of manic-depressives depends on the frequency of remission periods. There was no uniformity in the adjustments of paretic patients who had received malarial treatment.—*C. M. Louttit* (Ohio).

2369. **Potter, H. W. Hypophrenia as a symptom of juvenile paresis.** *Psychiat. Quart.*, 1931, **5**, 39–44.—The aim in presenting this communication is to emphasize the importance of syphilis as one of the etiological factors in psychiatric problems in children and especially among the so-called mental defective class. The clinical signs in these cases vary greatly, from restlessness, insomnia, enuresis, failure in school and inability to keep up with normal children, to marked childishness, defectiveness and dementia. From the clinical and laboratory findings on the eleven case histories given certain points are indicated as important. Among these, the fact is

noted that the mental pathology of congenital cerebral syphilis may be expressed by various gradations of hypophrenia, usually accompanied by emotional instability without any outstanding psychotic manifestations. Apparently in all the cases presented the same kind of process exists as that in the classical form of juvenile paresis. The only difference is found in the mental picture, as the organic neurological signs are essentially identical.—*E. T. Burr* (New York City).

2370. **Powdermaker, F. Social adjustment of the feeble-minded.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, **139**, 59–69.—(*Soc. Sci. Abst.* III: 1779).

2371. **Powdermaker, F. Capillary forms in relation to certain problems in development.** *Arch. Neur. & Psychiat.*, 1929, **22**, 1207–1216.—Studies were made of the capillaries in 679 feeble-minded patients. In constitutional idiots and low grade imbeciles, in whom there is a high proportion of physical abnormality (88% in the present series), there was a marked tendency for a retarded or abnormal development of the capillaries; this was much less marked in the few cases which showed an approximately normal physical development. In the cases in which these forms were found there was a significantly greater proportion of emotional, endocrine, and neurological disorders. No primitive forms were found in cases of secondary origin and in stable children with normal physical and mental development. The percentage of normal forms was high.—(*Biol. Abst.* V: 1372).

2372. **Rentschler, E. B., Vanzant, F., & Rowntree, L. G. The relation of the weather to the pain of arthritis.** *J. Clin. Invest.*, 1929, **7**, 311–312.—(*Biol. Abst.* V: 1090).

2373. **Roesner, —. Anatomische Hirnveränderungen bei sogenannte Kommotionsneurose.** (Anatomic changes in the brain in the so-called confusion neurosis.) *Jahresber. 101, Schlesisch. Ges. Väterland. Cultur. Med. Sect. Pt. 1*, 1928 (1929), **101**, 44–45.—(*Biol. Abst.* V: 1377).

2374. **Schilder, P. Brain and personality.** Nerv. & Ment. Dis. Monog. Series, No. 53, 1931. Pp. v + 136. $3.00.—Chapters 1–7 constitute a series of lectures given before the Washington Psychoanalytical Association. This section is entitled *Studies in Psychological Aspects of Cerebral Neuropathology*, and includes material on the psychology and neural anatomy of consciousness, muscle tonus, encephalitis, visual agnosia, speech disturbances, and the representation of the body. There is a selected bibliography of about one page. Part 2, entitled *The Relation between the Personality and Motility of Schizophrenics* (a series of lectures at the Phipps Clinic), includes chapters on regression, transference, postural and writing reflexes, hyperkinesia, akinesia, negativism, stereotypies and emotions, and catalepsy. There is a bibliography of 22 items. Throughout the discussion the author correlates psychoanalytical, neurological, and pathological data relating to each topic discussed.—*R. R. Willoughby* (Clark).

2375. **Schilder, P. Notes on the psychopathology of pain in neuroses and psychoses.** *Psychoanal. Rev.*, 1931, **18**, 1–22.—In Part I the author studies cases in which psychological mechanisms have repressed the pain perception to a considerable degree and raises the problem whether a particular attitude of the patient toward pain is based on psychogenic factors alone or in association with constitutional somatic factors. Part II deals with cases of somatic pain experiences of a purely psychogenic origin. The author accepts and illustrates by a case Mohr's view that pain very often comes in those places of the body where previously an especially great pleasure has been experienced, which pleasure one cannot get any more; and that it comes especially if one wants to punish oneself for the forbidden pleasure. Another case demonstrates an organic change which is an apparent outgrowth of psychogenesis. A distinct line cannot be drawn, however, between organic and functional changes. Schematically, one difference is the direction in which the process is moving: centrifugally in functional, centripetally in organic diseases. Pain is not only closely connected with anal and sadistic regression but also with regression in the narcissistic sphere: our own bodies become the center of our attention in pain. The psychology of pain is basic for the problems of sociology, since pain draws humans together in a search and bestowal of help and sympathy.—*L. M. Hatfield* (Canton, Ill.).

2376. **Schoennagel, J. Contribution à l'étude des psychoses syphilitiques.** (Contribution to the study of syphilitic psychoses.) These de Doctorat, Faculté de Médecine de Nancy, 1930. Pp. 70.—The states of excitation caused by cerebral syphilis, latent or in evolution, assume many forms which have mental deficiency as a common psychic symptom. 21 observations of patients and a bibliography of about 90 items close the work. —*Math. H. Piéron* (Sorbonne).

2377. **Scoville, M. C. An inquiry into the status of psychiatric social work.** *Amer. J. Orthopsychiat.*, 1931, **1**, 145–151.—The president of the American Association of Psychiatric Social Workers urges that the integrity within the field of psychiatric social work demands thoughtful study, critical analysis and constructive effort, for the tendency today is to broaden out until there are no definite limits to this field. She urges that the fundamental content of the field is social case work, although psychiatry has contributed, and will continue to contribute, much to its development. All types of social workers are coming to realize the importance of an understanding of mental hygiene in their fields, and in acquiring such training the line between psychiatric social work and other types of social work is disappearing. The president urges that if psychiatric social work is to continue as a specialty it must develop for itself a more precise and highly specialized type of training and must be equipped to make distinctive contributions in the study and treatment of problems of maladjustment.—*D. E. Johannsen* (Rochester).

2378. **Syz, H. C. Socio-individual principles in psychopathology.** *Brit. J. Med. Psychol.*, 1930, **10**, 329–343.—According to the investigations of Burrow the dynamics embodied in neurotic manifestations include, in one interconnected complex, unrecognized destructive features of the normal social background. The self-assertive drive derives much of its motive power, not from inherent urges, but from patterns imposed upon the individual's social interaction. In the social meshwork the relations of individuals to each other have lost their directness and the symbolic "I" represents an overvalued superstructure which contains an automatic drive to protect and defend itself. Thus the social structure not only contains egocentric disintegrative factors, but it automatically implants them into each of its human elements.—*E. M. Ligon* (Union).

2379. **Wolcott, H. B. Health as a factor in the social rehabilitation of the colony girl.** *Psychiat. Quart.*, 1931, **5**, 33–38.—The belief that health is an important factor in the social rehabilitation of the moron and the underlying principles for this belief, the methods used in the health programs, and an illustrative case, form the subject-matter of this article. The author states that social inefficiency is due not alone to defects of intelligence, but also to defects of temperament and character. The health work at the State Colony at Rome, New York, treats mind and body as an entity. It begins when a girl is admitted to the institution and continues through her colony and parole years. The medical treatment immediately after admission is corrective; treatment after the girl enters a colony is prophylactic, conservative and reconstructive.—*E. T. Burr* (New York City).

[See also abstracts 2199, 2240, 2288, 2401, 2416, 2426, 2460, 2495, 2520.]

## SOCIAL FUNCTIONS OF THE INDIVIDUAL

2380. **Abel, T. The significance of the concept of consciousness of kind.** *Soc. Forces*, 1930, **9**, 1–10.—(*Soc. Sci. Abst.* III: 3286).

2381. **Adler, H. M. Twelfth annual report of the criminologist (July 1, 1928 to June 30, 1929), Department of Public Welfare, State of Illinois, Springfield.** Pp. 104.—The clinical and research work of the Division of the Criminologist in the state institutions, and of the Institute for Juvenile Research, which is in charge of its preventive work among children, is described in detail, together with an account of the researches in progress supported by the Behavior Research Fund in cooperation with the Institute.—*L. Ackerson* (Institute for Juvenile Research).

2382. **Adler, H. M. The work of institutions in the prevention of delinquency.** *J. Juv. Res.*, 1931, **15**, 18–27.—Defining delinquency as maladjustment, the author finds no single cause or cure. Open-mindedness, early and continued training, as well as a very broad social attack on the problem, however, he feels are among the desiderata, if progress is to occur.—*H. L. Koch* (Chicago).

2383. **Aichhorn, A. The juvenile court: Is it a solution?** *Rev. int. de l'enfant*, 1930, **9**, 195.—(*Soc. Sci. Abst.* III: 3368).

2384. **[Anon.] Juvenile delinquency in Maine.** *U. S. Children's Bur., Publ. No. 201*, 1930. Pp. 90.—(*Soc. Sci. Abst.* III: 3381).

2385. **Barbour, C. E. Sin and the new psychology.** London: Allen & Unwin, 1931. Pp. 223. 6/.—*F. C. Bartlett* (Cambridge, England).

2386. **Baumann, —. Beitrag zur Geschichte des Aberglaubens: Ein Hexensabbat in einem Vororte Berlins.** (Contribution to the history of superstition: A witches' sabbath in a Berlin suburb.) *Krim. Monatsh.*, 1931, **5**, 19–20.—Recounts the attempt on the part of a woman to do away with her husband through recourse to cabalistic rites. The piercing of two swine hearts by needles, the punctures tracing the monogram of the husband, was prominent as an example of the hocus-pocus indulged in by the woman and her paramour.—*P. C. Squires* (Clinton, N. Y.).

2387. **Brandl, A. Die Lehre vom dichterischen Erlebnis angewendet auf die englische Literaturgeschichte.** (The theory of the poetic experience, applied to the history of English literature.) *Sitzber. Akad. Wiss.*, 1930, **17**, 281–288.—The thesis is developed that the starting-point of poetic creation is always an experience of the poet himself, whether a personal one or one adopted sympathetically from another person directly or from a literary work. It is not the total character of a literary work that is here considered in relation to poetic creation, but only the inception of the poetic concept. English literature is particularly rich in biographical material upon this subject, especially for the period beginning with Samuel Johnson's *Life of Savage* (1744) and extending through the life of Byron. It appears to be very difficult to investigate the hidden springs of poetic inspiration, and such data as we have relate principally to the romantic period. "Each poet apparently tends to have his special source of poetic inspiration. In Burns it is personal, particularly erotic, experiences, in Wordsworth rustic, in Walter Scott literary, in Coleridge dream material, in Byron touristic. . . . The violence with which the poetic experience appears is not related to its persistence." Thus for example "Walter Scott started from very tranquil literary stimuli and yet developed them to rather long epics or novels and even into whole series of epics and novels." . . . Where the source of inspiration is a literary document the work resulting from it is likely to take a form similar to its model.—*E. M. Pilpel* (New York City).

2388. **Calverton, V. F. The compulsive basis of social thought: as illustrated by the varying doctrines as to the origins of marriage and the family.** *Amer. J. Sociol.*, 1931, **36**, 689–720.—The science of anthropology is closely bound up with the doctrine of evolution. Both grew out of the same milieu. Nineteenth-century anthropologists were interested primarily in finding universal evolutionary laws which would explain the rise of man from

primitivism to nineteenth-century civilization. They studied primitive man less to find out what he was like than what they thought he ought to be like. The doctrine of evolution was used first by anthropologists as an absolutistic concept. In the strife that ensued the problems of primitive communism, private property, and family organization became the dividing issues at stake. Anthropological doctrine was employed in defense of class logic. Morgan was adopted as the intellectual advocate of the radical outlook, and Westermarck emerged as the exponent of the middle-class position. Westermarck's evidence, which has been shown to be based upon inadequate observation and false premises, was uncritically accepted by most of the leading thinkers during the last generation. Even Malinowski, as is shown, fell into the same fallacy. The recent investigations in mammalogy have proved this in conclusive detail. The best way to explain the attitudes and convictions at work in this controversy—and all similar controversies—is by means of the theory proposed here, namely, the theory of cultural compulsives. The existence of cultural compulsives makes objectivity in the social sciences impossible. One can be objective only in the observation of detail or the collection of facts, but not in their interpretation. Interpretation necessitates a mind-set, a purpose, an end. Such mind-sets, such purposes, such ends, are controlled by cultural compulsives.—(Courtesy *Amer. J. Sociol.*).

2389. **Carpenter, N., & Katz, D. A study of acculturization in the Polish group of Buffalo, 1926–1928.** *Univ. Buffalo Studies, Monog. in Sociol.*, No. 3, 1929, **7**, 103–133.—(*Soc. Sci. Abst.* III: 1691).

2390. **Case, C. M. Toward Gestalt sociology.** *Sociol. & Soc. Research*, 1930, **15**, 3–27.—(*Soc. Sci. Abst.* III: 3287).

2391. **Corbally, J. E. Measures of intra-urban mobility.** *Sociol. & Soc. Research*, 1930, **14**, 547–552.—(*Soc. Sci. Abst.* III: 1625).

2392. **Darlington, H. S. Ceremonial behaviorism: with respect to houses and house-building.** *Psychoanal. Rev.*, 1931, **18**, 23–36.—The chief ideas dramatized in ceremonies are those of death, burial, and resurrection. Death finds its expression in a symbolization that has reference to coition; burial and gestation are paired; and resurrection and birth. Beliefs, ceremonies and customs of uncivilized tribes of Arabs, negroes and Indians furnish illustrative material, typical of which are: the ceremonial making of the sacred fire (life) with the upright fire-drill (the male) and the prostrate fire-board (the female) in a frictional activity; and the belief that a house (womb) will not collapse so long as gestation continues, but with birth the roof will fall, and then it must be lifted by a main-post (phallus, later the child). With its erection the fire (child) building ceremony takes place; and the main-post becomes the guardian or deity of the house. The unconscious dramatizes in ceremony what it considers the primal event: creation. The rational mind identifies the actors, shown as principles, with the body in its procreative capacities. Ritual, therefore, no matter how sacred and pure it is thought to be by its devotees, is not wholly so, but is a disguised sexual drama. Bibliography.—*L. M. Hatfield* (Canton, Ill.).

2393. **David-Schwarz, H. Kantönligeist** als Ursache eines typisch schweizerischen Ehekonfliktes. (Canton loyalty as a cause of a typically Swiss case of marital conflict.) *Psychol. Rundschau*, 1931, 2, 311–314.—Attention is called to the well-recognized fact of local loyalties instead of national allegiance among the Swiss people. The author finds several reasons for this state of affairs, and emphasizes the mental make-up of the individual as a cause. He is individualistic, too much in love with what is his to see value in others and what is theirs. This biased viewpoint accounts for local prejudices, for emphasis on customs and dialects. When marriage between members of two cantons takes place, there is great danger in this factor as a source for marital conflicts. The author cites such a case, the difficulties arising, and the method employed to gain a mutual understanding and respect, and consequent harmony. —*A. B. Herrig* (Michigan Central State Teachers College).

2394. **David-Schwarz, H. Die Psychologie in** der **Moduslehre.** (The psychology of the grammatical mode.) *Psychol. Rundschau*, 1931, 2, 307–311.—The use of a particular mode in expression reflects the thought-process of the speaker, and in recognizing this the study of grammar receives its life-blood. The thought of the moment gives life to mode in sentence-structure. With this thesis, the author analyzes the various modes used in self-expression, from the many types characteristic of the Indian tongue to the two left in the English speech, the indicative and the imperative. The more cultured, mechanistic and rationalized a people, the fewer modes it uses in speech. Mode is determined not by structure of a sentence, but largely by the thought-process as revealed in inflection, emphasis, etc. The interchange is common with the best writers. Especially uncertain is the optative mode, with its two German forms, the *optativ-präsentis* and the *optativ-präteriti*. The subjective interpretation of mode is too little recognized and grammarians are too pedantic in their approach to this phase of language study.—*A. B. Herrig* (Michigan Central State Teachers College).

2395. **Dearden, H. The mind of the murderer.** New York: Sears, 1930. Pp. 288. $3.50.—A popular account of twenty cases, illustrating the author's thesis that the concept of instinct is basic to an understanding of murder. Each case is accorded an interpretation. Dearden has made generous use of the egoistic and altruistic "instincts" in interpreting criminal acts. The psychological mechanisms of repression and indirect expression are constantly used by the author in his attempt to explain the behavior of the offenders, but these mechanisms are merely engrafted upon certain critically constituted instincts. —*P. C. Squires* (Clinton, N. Y.).

2396. **de Clercq, A. La peur et la honté chez les noirs Baluba.** (Fear and shame among the Baluba.)

*Congo*, 1928, 2, 588–601.—(*Soc. Sci. Abst.* III: 1991).

2397. **Descamps, P. L'occultisme dans "Les mille et une nuits."** (Beliefs in occult powers found in *The Thousand and One Nights.*) *Rev. int. de sociol.*, 1929, **37**, 387–412.—(*Soc. Sci. Abst.* III: 3356).

2398. **Dickson, S. B. Report of the radio section's canvass of the opinion of 7,175 radio listeners.** *Commonwealth* (*California*), 1929, **5**, 382–390.—Returns from a questionnaire sent to a representative sample of the California population indicated opinions on educational programs, courses for university extension credit, and teaching of an international language.—(*Soc. Sci. Abst.* III: 3336).

2399. **Droba, D. D. A scale of militarism-pacifism.** *J. Educ. Psychol.*, 1931, **22**, 96–111.—By the use of the method of equal appearing intervals an evenly graduated scale of militarism-pacifism has been constructed. It has a reliability of 0.90. A consistent change toward pacifism is found for the successive undergraduate and graduate classes. Women are more pacifistic and less variable than men. Of the ten churches compared the Catholic, Lutheran, and Episcopalian seem to be least pacifistic and the Disciples of Christ, Baptists, and Jews most favorable to the peaceful method of solving international problems.—*J. A. McGeoch* (Missouri).

2400. **Dubois, H. M. La caractère des Betsileo (Madagascar).** (The character of the Betsileo (Madagascar).) *Anthropos*, 1930, **25**(1–2), 209–237.—(*Soc. Sci. Abst.* III: 85).

2401. **Duhamel, J. Essai sur le rôle des éléments paranoïaques dans la genèse des idées révolutionnaires.** (Essay on the rôle of paranoic elements in the genesis of revolutionary ideas.) These de Doctorat de la Faculté de Médicine de Paris, 1930. Pp. 145.—The normal revolutionary spirit in 1789 was exaggerated little by little under the influence of success, the fear of turning back, the menace of invasion, and the phobia of inner treachery. All this rapidly created a collective psychosis comparable to the paranoic syndrome with its four classic features: arrogance, distrust, falsity of judgment, and social inadaptability. This psychosis grew progressively worse and disappeared rapidly after the ninth Thermidor. This pathological state was maintained by a certain number of typical paranoic leaders: St. Just, Robespierre, Marat, etc. No bibliography. —*Math. H. Piéron* (Sorbonne).

2402. **Duncan, O. D. An analysis of the population of the Texas penitentiary from 1906 to 1924.** *Amer. J. Sociol.*, 1931, **36**, 770–781.—In an attempt to trace in a rough way the association between various influences and the occurrence of crimes carrying a penitentiary sentence in Texas, it has been found that negroes and Mexicans have much higher crime ratios than the white population of the state. Territorial migration has been found to go with an increase in the crime rate of the migrants. Urban populations as a class show a greater crime rate than rural populations. The age of greatest frequency of crime has been found to extend from fifteen to forty years, the ten years of life having the most crimes being from twenty to twenty-nine years. Occupations which are seasonal and mostly urban have higher crime rates than those which give steady employment, or which are rural. Relatively speaking, there are fewer crimes among those actually married than among those of any other marital condition. The crime rate seems to have an inverse relationship to the amount of education possessed by various groups. An elementary statistical analysis of these phenomena is the task of this paper.—(Courtesy *Amer. J. Sociol.*).

2403. **Ebaugh, F. G., Johnson, G. S., & Wolley, L. F. Studies in juvenile delinquency in Colorado. I. One hundred boys.** *Univ. Colorado Studies*, 1930, **18**, 9–27.—(*Soc. Sci. Abst.* III: 3376).

2404. **Engelhardt, K. F. Klinische Kriminologie.** (Clinical criminology.) *Monatsschr. f. Krimpsychol. u. Strafrechtsref.*, 1930, **21**, 532–535.—(*Soc. Sci. Abst.* III: 1714).

2405. **Erickson, M. H. Some aspects of abandonment, feeble-mindedness, and crime.** *Amer. J. Sociol.*, 1931, **36**, 758–769.—A total of 1,500 adult white married male criminals in Wisconsin were selected. These included 170 cases of abandonment, of which 35% were feeble-minded, although the feeble-minded constituted only 18.2% of all criminals. Relatively, 22.3% of the feeble-minded committed abandonment as compared with 8.88% of the non-feeble-minded. The degree of feeble-mindedness was essentially without import. Subjective causes for delinquency in abandonment cases were essentially economic distress and ill-health, with liquor playing far less part in abandonment, with the larger families occurring more frequently among the feeble-minded. World War service, conjugal incompatibility, and individual poverty constitute factors in both abandonment and crime. The disruption of the childhood home of the individual appears to lead directly to the production of social misfits. The foreign-born feeble-minded contribute 230 to 245% of their proportion of crime as determined by population ratios.—(Courtesy *Amer. J. Sociol.*).

2406. **Fenton, N. Reading interests of delinquent boys.** *J. Juv. Res.*, 1931, **15**, 28–32.—The author believes that much good may be accomplished by guiding in a proper fashion the reading of the individual delinquent. A rough outline is given of the reading program in operation at Whittier School.—*H. L. Koch* (Chicago).

2407. **Finke, —. Ein zwölffacher Brandstifter.** (A twelvefold incendiary.) *Krim. Monatsh.*, 1931, **5**, 18–19.—A brief account of a young man who committed twelve separate offenses of arson during the course of seven years. There was no motive of revenge active in this case. The incendiary seemed to be impelled to the commission of his crimes by the pleasure in witnessing the burning of the buildings and mystifying the public. The case shows the dangers involved in attempting to solve crimes by clinging tenaciously to a narrow and preconceived theory of criminal motivation.—*P. C. Squires* (Clinton, N. Y.).

2408. **Folsom, J. K. Social psychology.** New York: Harpers, 1931. Pp. xviii + 701. $3.50.—The author has written a textbook endeavoring to construct a framework of thought harmonizing the standpoints of individual behavior, social interaction and culture. He has endeavored also to present in a stimulating manner all the important research conclusions and points of view. Introductory chapters on the organization of behavior, both native and acquired, are followed by chapters on wishes and the organization and readjustment of personality, personality differences and measurement, and interaction of personalities. Later chapters treat the psychology of culture, social attitudes, cultural change, social psychiatry, and the future of social psychology. There are appendixes covering a selected biography, the minimum library requirement for a course in social psychology, follow-up subjects, and research and discussion topics.—*R. R. Willoughby* (Clark).

2409. **Freud, S. Das Fakultätsgutachten im Prozess Halsmann.** (The decision in the case of Halsmann.) *Psychoanal. Bewegung,* 1931, **3**, 32–34.—Freud expresses his opinion on the question whether the Oedipus complex figured as cause in the case of Philipp Halsmann's murder of his father. In giving his judgment, which is negative, he contrasts with the case in Dostoievski's novel *The Brothers Karamazov,* in which the Oedipus complex is the center of interest.—*A. B. Herrig* (Michigan Central State Teachers College).

2410. **Gillin, J. L. Indeterminate probation and parole.** *J. Juv. Res.,* 1931, **15**, 1–6.—The author presents a brief for the indeterminate sentence and for the extension of the authority of parole and probation boards.—*H. L. Koch* (Chicago).

2411. **Heinlein, C. P. Pianoforte damper-pedalling under ten different experimental conditions.** *J. Gen. Psychol.,* 1930, **3**, 511–528.—"The damper-pedal performance of a well-trained pianist is essentially an automatic response which has been conditioned by, and is functionally dependent upon, finger pattern, finger progression, keyboard position, method of phrasing, speed of rendition, variation in tonal intensity and in timbre, extent of tonal anticipation, degree of tonal sustension, type of imagery employed in recall, and appreciation of and vividness of attention to tonal relationships. The damper-pedal response is so highly integrated into a unity of effect with the other phases of a pianoforte that alteration of any single factor or group of factors mentioned above may seriously modify a pianist's customary pedal interpretation. Increase in musical proficiency seems to be marked by an increase in the difficulty experienced to avoid such damper-pedal pattern modification."—*H. Cason* (Wisconsin).

2412. **Hellwig, A. Cinematógrafo y criminología.** (Moving pictures and criminology.) *Rev. de crim., psiquiat. y med. legal,* 1930, **17**, 224–237.—(*Soc. Sci. Abst.* III: 1719).

2413. **Herbertz, R. Das Verbrechen im Spiegel der Sprache.** (Crime in the mirror of speech.) *Psychol. Rundschau,* 1931, **2**, 302–307.—A claim is made that the language of a people throws light on the problem of crime. The Greek thought of crime as an act, did not think of the individual, and his language reveals this. The criminal is not the one who does wrong, he is the victim of ill luck. Aristotle in his *Ethics* uses the word *hemartemenroi* to designate this difference. The article discusses the Greek attitude toward individual responsibility as mirrored in the language of the day—*hamartema* and *dikema.* The Stoic brings in new words to designate his variation from Aristotelian attitudes, in recognizing the crime as arising from the individual. The practical Roman attitude is recognized in his words, *homo nocens.* The criminal is now regarded as a menace to society—*Schädling.* The author traces the derivation of the word *criminal* as throwing light on earlier attitudes, and sees in *delinquent* a modern interpretation of crime and the relationship of the criminal to it.—*A. B. Herrig* (Michigan Central State Teachers College).

2414. **Hiller, K. Forderungen zum Sexualstrafrecht.** (A challenge to criminal laws with reference to sex offenses.) *Neue Generation,* 1930, 26, 109–116.—(*Soc. Sci. Abst.* III: 3290).

2415. **Horney, K. Das Misstrauen zwischen den Geschlechtern.** (Distrust between the sexes.) *Psychoanal. Bewegung,* 1930, **2**, 521–537.—The article sets up the thesis that it might be possible to discover a single underlying cause for conflicts between the sexes instead of attributing them to superficially analyzed causes. The author attempts to find this cause. An individual finds it difficult to give himself wholly to another, he reserves a part of his personality, and expecting that the partner will do likewise, he experiences distrust. Each partner expects to find in the other those characteristics which he cherishes for himself, these often being opposite in character. The discrepancy between expectation and fulfilment is a deep-lying cause of marital misunderstanding. The author makes a historical survey of the place woman has held in relationship to man, and his effort to keep her subordinate, an indication of mistrust. The tendency to interpret differences as inferiorities is a potent cause for misunderstanding. The stronger feels his superiority, the weaker his inferiority, neither completely makes himself known to the other, and conflicts arise. The question arises as to how this mistrust between the sexes can be lessened, and the author thinks it may be done through conditioning children so as to avoid fear of the opposite sex.—*A. B. Herrig* (Michigan Central State Teachers College).

2416. **Hussey, L. M. Psychiatrists in court.** *Amer. Mercury,* 1931, **22**, 342–346.—The author reviews briefly some of the psychiatric surveys of criminals and points out wide differences in results. He accuses psychiatrists of riding hobbies in the field of criminology. In the present loose state of psychiatric diagnosis the work of the psychiatrist is not of sufficient value to the court to make it likely that he will soon have much influence in the disposal of criminal cases.—*J. T. Metcalf* (Vermont).

2417. **Ilkov, A. Masovoto buntarstvo u nas v svetlinata na kolektivnata psikhologiya.** (The mass revolt in Bulgaria in the light of social psychology.) *Filosofski Pregled,* 1929, **1**, 433–444.—(*Soc. Sci. Abst.* III: 1285).

2418. **Jacques, A. A. Terms of kinship and corresponding patterns of behaviour among the Thonga.** *Bantu Studies,* 1929, **3**, 327–348.—(*Soc. Sci. Abst.* III: 1999).

2419. **Jameson, S. H. Social responsibility and juvenile delinquency.** *J. Juv. Res.,* 1931, **15**, 7–17.—The author believes that the responsibility for juvenile delinquency rests not with the delinquent but with the factors, especially the socially conditioned ones, which cause his deviation. There is needed, it is contended, an analysis from the point of view of behavior patterns of the interactions of individuals with their social milieu and then an adjustment of social forces consistent with these findings. The concepts of social control and social responsibility must go hand in hand.—*H. L. Koch* (Chicago).

2420. **Jancke, H. Das Spezifisch-Musikalische und die Frage nach dem Sinngehalt der Musik.** (The specifically musical quality and the question of the meaningful contents of music.) *Arch. f. d. ges. Psychol.,* 1930, **78**, 103–184.—Musical esthetics has neglected to consider music from the point of view of the composer, as if "expression" were the same for the composer as for the listener. The purpose of this theoretical study is to show that expression during the process of composing is different from expression during the process of listening. The meaning of music lies in "the intensity of its relations to the self." The more constant these relations are, the clearer is the meaning. The act of composing consists in relieving certain tensions; it is the last episode of a series of experiences. "Specifically musical music is autistic." 47 references.—*K. F. Muenzinger* (Colorado).

2421. **Kinberg, O. Über die relative Bedeutung der Generalprävention und der Spezialprävention.** (Concerning the relative importance of general and specific prevention [of crime].) *Monatsschr. f. Krimpsychol. u. Strafrechtsref.,* 1930, **21**, 468–473.—(*Soc. Sci. Abst.* III: 1721).

2422. **Kinberg, O. Aktuella kriminalitetsproblem i psykologisk belysning.** (Current criminological problems from the psychological point of view.) *Svenska läkart.,* 1931, **28**, 119–122.—The entire problem of crime and criminology is here critically surveyed. Several practical questions are treated in detail, while much space is devoted to general prevention, with great emphasis on moral training. The moral value of punishment is not great. The crime problem is first of all of psychological and psychiatric interest and importance. A "crime typology" should evolve from such studies. In the last chapters the author offers a criticism of now existing systems of punishment, illustrated by examples, and offers many suggestions, which at least are new to readers in Sweden.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

2423. **Laydevant, F. La poésie chez les Basuto.** (Poetry among the Basuto.) *Africa,* 1930, **3**, 523–540.—(*Soc. Sci. Abst.* III: 2001).

2424. **Lord, R. Cross-section of the rural mind.** *New Repub.,* 1930, **63**, 146–151.—(*Soc. Sci. Abst.* III: 1633).

2425. **Lorden, D. M. Mob behavior and social attitudes.** *Sociol. & Soc. Research,* 1930, **14**, 324–331.—(*Soc. Sci. Abst.* III: 1636).

2426. **Loudet, A. Constitución paranoice y criminalidad.** (The paranoic constitution and criminality.) *Rev. de crim., psiquiat. u. med. legal,* 1930, **17**, 129–137.—(*Soc. Sci. Abst.* III: 3378).

2427. **Mamlok, L. Erfahrungen aus der juristischen Eheberatung.** (Deductions from legal advice in matters of matrimony.) *Frau,* 1930, **37**, 338–341.—(*Soc. Sci. Abst.* III: 1561).

2428. **Moulton, B. E. Some causes of delinquency in relation to family attitudes.** *Amer. J. Orthopsychiat.,* 1931, **1**, 173–177.—The author emphasizes the importance of the family in solving problems of child delinquency. Several case studies are cited, showing the importance of the Oedipus situation, feeling of insecurity on the part of the child, identification, etc., in producing asocial behavior. The author feels that frequently the family, rather than the child, is the problem, and as such should be treated.—*D. E. Johannsen* (Rochester).

2429. **Mozley, J. F. Freud and religion.** *Church Quart. Rev.,* 1930, **111**, 44–64.—(*Soc. Sci. Abst.* III: 3366).

2430. **Nilsson, M. P. Existe-t-il une conception primitive de l'ame?** (Is there a primitive conception of the soul?) *Rev. d'hist. et de phil. relig.,* 1930, **10**, 113–125.—(*Soc. Sci. Abst.* III: 70).

2431. **Noltenius, F. Charakterstudium als Mittel Rassenerforschung.** (Character study as a means to race study.) *Arch. f. Rassen- u. Gesellsch.- Biol.,* 1930, **23**, 231–248.—(*Soc. Sci. Abst.* III: 1975).

2432. **Reuter, E. B. Race mixture.** New York: McGraw-Hill (Whittlesey House), 1931. Pp. vii + 224. $2.50.—Nine papers, of which six have appeared previously. The three remaining are *Racial Amalgamation in the United States,* an account of the sources of the mulatto population, including data on the spatial and temporal variation in the proportion of mulattoes to total negroes; *The Legal Status of Racial Intermarriage,* a summary by states of the statutory prohibitions on miscegenation; and *Color and Achievement,* a detailed analysis of the proportion (about 10 or 15 to 1) of mulattoes (about 1/5 the negro population) to full-bloods among negro men and women of some eminence.—*R. R. Willoughby* (Clark).

2433. **Rice, S. A. (Ed.) Methods in social science.** Chicago: Univ. Chicago Press, 1931. Pp. xiii + 822. $4.50.—This is the final report of the Social Science Research Council committee on scientific method in the social sciences; it consists of a series of analyses of methods used in outstanding contributions in social science. These are arranged in three major groups: (1) definition, subdivided

into delimitation of fields of inquiry, definition of objects of investigation, and establishment of units and scales; (2) ascertainment of sequences and change, divided into attempts to discover spatial distribution and temporal sequences of cultural phenomena, interpretations of change as a developmental stage, and interpretations of temporal sequences with consideration of special types of "causation"; (3) discovery of relations, divided into interpretations of relationship among unmeasured factors, attempts to determine relations among measured but experimentally uncontrolled factors, and attempts to determine quantitative relations among measured and experimentally controlled factors. 52 analyses by 48 analysts are included, together with 8 appendixes on the methodology of the case book itself and of its divisions, and 3 indexes. Analyses of special interest to psychologists are on: Titchener and Gestalt, by R. M. Ogden; Kretschmer's typology, by H. Klüver; McDougall's instinct concept, by C. P. Stone; Thorndike's handwriting scale, by J. Peterson; Malinowski's primitive Oedipus complex, by H. D. Lasswell; Hobson's psychology in economics, by Z. C. Dickinson; Healy and Bronner's behavior sequences, by F. N. House; Slawson and Burt's delinquent studies, by R. S. Woodworth; Wyatt and Fraser's rest pause effects, by S. A. Rice; Allport's group effects, by L. L. Thurstone; Ebbinghaus' forgetting studies, by J. E. Coover; Ach's action process, by F. Fearing; Shaw's delinquency areas, by S. A. Rice.—*R. R. Willoughby* (Clark).

2434. **Rubinow, I. M. After divorce—what?** *New Repub.*, 1930, **63**, 226–228.—(*Soc. Sci. Abst.* III: 1563).

2435. **Russell, O. D. Suicide in Japan.** *Amer. Mercury*, 1930, **20**, 341–344.—(*Soc. Sci. Abst.* III: 3379).

2436. **Shaw, C. R. What the delinquent boy's own story reveals.** *Rel. Educ.*, 1931, **26**, 163–169.—We have here several autobiographical sketches from young delinquents. The purpose is to give the boy's own point of view and to show how he came to be a criminal. There are thus shown the human aspects of the delinquency problem.—*J. P. Hylan* (Stoneham, Mass.).

2437. **Smock, J. C. The Greek element in English words.** New York: Macmillan, 1931. Pp. xiv + 267 + vi + 356.—This word register contains about 130,000 English words derived or formed from Greek, directly or indirectly, some 50,000 being not yet in general dictionaries and representing the newer terms in science. Thus under *psycho-* meaning *soul* and now used for *mind*, with its other forms, are listed over 150 English words from the *Psyche* of mythology to *psychoanalysis, psychogalvanic, psychopath, ethnopsychology*, and *phytopsyche*. Italicized labels designate the field of thought in which the scientific terms are primarily used.—*M. F. Martin* (West Springfield, Mass.).

2438. **Steinmetz, S. R. Anleitung zu einer systematischen Ermittlung des Individuums bei den Naturvölkern.** (Guides for a systematic investigation of the individual among primitive peoples.) *Ethnol. Studien*, 1929, 1–16.—(*Soc. Sci. Abst.* III: 1976).

2439. **Sutherland, E. H. Prognose von Erfolg oder Fehlschlag bei Bewahrungsfrist.** (Prediction of success or failure on parole.) *Monatsschr. f. Krimpsychol. u. Strafrechtsref.*, 1930, **21**, 507–513.—(*Soc. Sci. Abst.* III: 3380).

2440. **Travis, L. E., & Herren, R. Y. Studies in stuttering. V. A study of simultaneous antitropic movements of the hands of stutterers.** *Arch. Neur. & Psychiat.*, 1929, **22**, 487–494.—(*Biol. Abst.* IV: 27545).

2441. **Tylor, W. R. Some factors of interracial adjustment.** *Soc. Sci.*, 1930, **5**, 508–518.—(*Soc. Sci. Abst.* III: 3307).

2442. **Visher, S. S. The comparative rank of the American states.** *Amer. J. Sociol.*, 1931, **36**, 735–757.—In proportion to population at their birth, New England produced about twice as many leaders of a score of types as did the middle Atlantic or north central states, about six times as many as the south Atlantic states, and about ten times as many as the south central states. The North surpassed the South in practically every item studied, and there is a steady decline southward in average rank. Within each of the geographic regions there is, with few exceptions, a progressive southward decline. The similar rank of any state in its yield of numerous types of leaders and in various other criteria of merit warrants the generalization that a region which excels in producing important types of leaders also excels in producing other sorts of leaders, and in other significant evidences of merit. There has been a progressive decline since about 1866 in the preeminence of New England in the production of notables in proportion to population and a lesser decline of New York and other seaboard states. There has been a relative increase in the north central states and, to a lesser degree, in the western states. Within the north central states, and in several other groups of states, there has been systematic change in productivity, decade to decade. These changes suggest that the relative yield of leaders often depends largely on the social and population conditions in the area.—(Courtesy *Amer. J. Sociol.*).

2443. **Von Hattingberg, H. Die Tragik der weiblichen Situation.** (The tragedy of the status of women.) *Neue Rundsch.*, 1930, **41**, 260–273.—(*Soc. Sci. Abst.* III: 1558).

2444. **Von Wiegand, C. Sex puritanism in Russia.** *Nation*, 1930, **131**, 62–64.—(*Soc. Sci. Abst.* III: 1560).

2445. **Weigand, C. J. Die Formen und psychologischen Grundlagen der Werbung.** (The forms and psychological foundations of social control.) *Arch. f. d. ges. Psychol.*, 1931, **78**, 495–570.—By social control (*Werbung*) the author means the influence exerted upon people to direct their economical, political, cultural, and ethical behavior in order to achieve certain ends. He recognizes the following types: advertising, propaganda, missionary work,

and agitation. The process of social control is analyzed as control through the object itself and through certain sensory avenues.—*K. F. Muenzinger* (Colorado).

2446. **Westermarck, E. Wit and wisdom of Morocco.** New York: Liveright, 1931. Pp. xi + 448. $5.00.—This is the third volume of the author's trilogy on Moorish customs and ideas, and consists essentially of 2013 proverbs collected in Tangier and the neighboring province of Andjra. An introductory essay of 64 pages contains material on the nature, use, form, content, linguistics, classification, and social psychology of the proverbs. The proverbs are arranged by subject matter and conditions of most frequent use, although many are of wide application; thus there are chapters consisting of proverbs on women, the family, work, robbery, cursing, Christians, intellectual qualities, agriculture, etc. The Arabic text is given in every case, both in the original and transliterated. There are a comprehensive index and footnote references.—*R. R. Willoughby* (Clark).

[See also abstracts 2161, 2202, 2295, 2304, 2305, 2325, 2378, 2492, 2494, 2497, 2499, 2504, 2511, 2513, 2523, 2527, 2550, 2581, 2583.]

## INDUSTRIAL AND PERSONNEL PROBLEMS

2447. **[Anon.] The Australian Institute of Industrial Psychology.** *J. Nat. Instit. Indus. Psychol.*, 1931, 5, 276–279.—Extracts are given from the third annual report of this Institute, which is affiliated with the National Institute of Great Britain.—*M. Drury-Smith* (Cambridge, England).

2448. **[Anon.] Effect of noise upon efficiency.** *Monthly Labor Rev.*, 1930, 30, 1–10.—(*Soc. Sci. Abst.* III: 1058).

2449. **[Anon.] Discussion of personnel problems at the International Mental Hygiene Congress.** *Monthly Labor Rev.*, 1930, 30, 67–70.—(*Soc. Sci. Abst.* III: 1057).

2450. **Balchin, N. Movement study in packing.** *J. Nat. Instit. Indus. Psychol.*, 1931, 5, 274–275.—This paper is concerned with an investigation the aim of which was to discover whether there was "one best way" of performing a task which consisted of transferring to a central box a selection of small articles from a number of large trays arranged around the packers. It was found that the girls employed were divided into two well-marked groups, those whose quickness lay in their long extended movements such as stretching out, and those whose speed lay in the accuracy and dexterity of their short quick movements. The best method for each particular worker was not spontaneously adopted. However, once a worker's movements had been studied and her category determined, the adoption of the correct method led to a marked increase in her speed of handling the articles.—*M. Drury-Smith* (Cambridge, England).

2451. **Betgilel, L. Körperkultur und Bewegungsphänomen.** (Physical culture and the movement phenomenon.) *Psychol. Rundschau*, 1931, 2, 292–294.—The author discusses the presentation given by Kosnick in his *Muscle and Mind*, in which the author sees need of adaptation of physical culture to the worker, both men in industrial life and women in homes, as well as to the athlete, the dancer and the musician. Mechanical training for the development of muscle is criticized. Kallmeyer states that all physical training must arise out of the psychical, a self-determined release of restraints. The author recommends the work by Kosnick as most valuable in its viewpoint.—*A. B. Herrig* (Michigan Central State Teachers College).

2452. **Binns, H. Some experiments with wool textile trade advertisements.** *Brit. J. Psychol.*, 1931, 21, 314–325.—The problem was whether it is possible to create such an impression on the mind of a wool buyer in an advertisement, as to lead him to buy goods after comparison, at a competitive price, which might be reduced by increased sales or increased by advertising costs. In the usual specialist-to-specialist textile advertisements stimulation of the sense of touch and the appeal of memory are lacking, the appeal tending to drift into the mere statement of the barest facts. Forty-five selected advertisements from an international wool trade publication were chosen and divided into groups of fifteen each; into each of these groups an advertisement with distinctive features similar to two other advertisements was introduced. It was considered that the average ranking according to merit of the three sets of fifteen advertisements by a large number of persons should, if a common factor were present, give a high correlation. They were arranged in order of preference from the point of view of the buyer and of the seller, and as pleasant memory impressions. Twelve groups of different kinds of persons took part in the judgments. The correlations were calculated by means of Spearman's footrule formula. The results indicated that there was a substantial agreement between the various groups. According to the advertisement standard the most attractive advertisements were those of photographs of men handling wool, suggesting the active cooperation of the senses of touch and sight with judgment. Those next in favor were illustrations of wool only, without men, personal handling being suggested only indirectly through the sense of sight. The paper also discusses the individual advertisements preferred, group differences of judgment, group correlations with advertisements and wool merchants' standards, the common factors in the judgments and the effect of repeated judgments. It concludes with some observations on commercial tests in general.—*M. Drury-Smith* (Cambridge, England).

2453. **Craig, D. R. Ninth annual fall conference of the Personnel Research Federation.** *Person. J.*, 1931, 9, 359–362.—Conference on personnel administration in hotels,—the importance of stabilizing employment, saving cost of labor turn-over, training supervisors and employees for efficient service, decreasing accidents, raising morale. Satisfied employees make for satisfied guests. Conference on personnel administration and research in industries and stores; reports from the General Motors Corpo-

ration, the Research Bureau for Retail Training, and discussion of practices in employment in a considerable number of department stores. Conference on the measurement of attitude, interests, and morale. The interest questionnaire seems valuable as an aid to interviewing. Annual dinner.—*H. E. Burtt* (Ohio State).

2454. **Dennison, H. S. Organization engineering.** New York: McGraw-Hill, 1931. Pp. viii + 204. $3.50.—Introductory abstract. Chapter II: Men working in groups. Workers differ in mental capacity and also as a result of home conditions or temporary conditions in the industry. Pensioning workers rather than laying them off in old age keeps up good will. Friction between departments should be avoided. Undue competition of this sort sometimes leads to playing tricks on other departments. What to do must be determined by the facts, but when and how it should be done necessitate consideration of opinions as well as facts. This shades into a somewhat political point of view. Team work necessitates a knowledge of a common purpose, a desire for that purpose, a desire to help each other, some degree of functionalization of the task, a knowledge of what team mates are supposed to do and what they are actually doing, and a knowledge of how to help them. Leadership involves both directing and helping. "Followership" must also be considered, that is, the reason men follow a leader. If the right leaders are not provided the workers find their own outside. The effectiveness of habit and emotion must be recognized in problems of motivation. Unnecessary fears should be removed and first impressions should be created with considerable care. Chapter III: Impulsion. Self-serving motives are quite effective, particularly the financial. They are rather mechanical in operation and may lead to unforeseen results. Fluctuations in wages are undesirable. Promotions are an effective motivation, but it is a rather critical matter to make them correctly. It is necessary to study the effect upon others besides the one who is promoted. Security in employment is another means of impulsion. Craftsmanship is not as feasible with present functionalized industry, but there is the possibility of a "team-craftsmanship," in which members will take pride in the product of the entire group. Workers desire the good opinion of their fellow-workers and this often leads to such things as stereotyping. They also desire justice and hence it is desirable to show the reason for orders which are given them. Loyalty cannot be aroused directly. It involves approval of the organization's purpose. Chapter IV: Direction. Methods of training for the job should be worked out rather carefully, often on the basis of a job analysis. The problem is particularly crucial in the case of managerial positions, because of the complexity of the work. One project on foreman training involved sending the individuals to work under different foremen for a short time, so as to analyze their methods. The educational program should look to the future. Promoting men from the ranks has many merits, but there is the danger of inbreeding. Chapter V: Organization structure. Flexibility in organization is desirable. Sub-leaders should not be "yes" men. Departmentalizing is somewhat analogous to the cellular structure of living tissue. Planning and advance specification eliminates some of the need for bossing. Centralization and decentralization are both desirable. The locus of control will often shift from one to the other with different problems. A line organization is often cumbersome and cross contacts should be developed. The technique of effective committee chairmanship should be more carefully studied. It is possible to integrate the committee's efforts rather than effect compromises. Continuous reorganization should be in progress. While there are many general principles in organization the engineer must always be on the alert for individual problems of individual concerns.—*H. E. Burtt* (Ohio State).

2455. **Dennison, H. S., & Keir, J. S. The selection, assignment and training of workers.** *Personnel*, 1930, **7**, 45–51.—(*Soc. Sci. Abst.* III: 1038).

2456. **Devinat, P. Les conséquences sociales de l'organisation scientifique du travail.** (The social effects of the scientific organization of labor.) *Riv. int. di sci. soc. e discipline ausiliarie*, 1930, 33, 291–309.—(*Soc. Sci. Abst.* III: 2850).

2457. **Diakonow, P. P. Die somatische Prüfung der Übungsfähigkeit in Bezug auf die Fliessarbeit.** (Physical testing of skill in reference to the conveyor system.) *C. r. 5 Conf. int. psychotech. Utrecht*, 1928, 186–187.—(*Biol. Abst.* V: 1126).

2458. **Dilger, J. Gruppeneinteilung bei der Gaussschen Kurve.** (Group division with the Gaussian curve.) *Indus. Psychotech.*, 1930, **7**, 258–263.—(*Soc. Sci. Abst.* III: 3434).

2459. **Efimoff, W. W., Salzgeber, O. A., Mitrofanoff, P. P., Sarch, M. N., Krjutschkowa, A. P., Itina, N. A., & Lewina, A. J. Die vergleichende physiologische Wirkung der Arbeit beim individuellen, beim manipulationsweisen und beim Konveyorsystem.** (The comparative physiological effect of labor performed without specialization, under a division of processes, and with the aid of a conveyor.) *Arbeitsphysiol.*, 1930, **3**, 218–229.—(*Soc. Sci. Abst.* III: 1039).

2460. **Elkind, H. B. [Ed.] Preventive management—mental hygiene in industry.** New York: Forbes, 1931. Pp. 274.—Eight lectures given under the auspices of the State Department of Education and the Massachusetts Society of Mental Hygiene. Meyer Bloomfield: *Preventive Management, the Next Step in Industrial Relations.* A plea for experimental work and for specialists on human aspects of management. Ordway Tead: *Human Nature and Management.* We must think of human nature in new terms, particularly the eagerness for new experiences, the desire for activity, and the satisfaction found in new activity—characteristics which we often find in the child. We must also consider the individual as a whole. The manager's problem is one of organizing and keeping in harmonious relationship minds, desires, personalities, in order to get certain things done. Descriptions of typical plants which are handling these management problems ade-

quately. Objectives of the management and the workers should be somewhat similar. Executive work is apt to be too impersonal. V. V. Anderson: *Psychiatry in Industry.* Psychiatry finds its real industrial setting in personnel work. One of its main functions is dealing with problem workers. About 20% of the employees at Macy's are maladjusted in some way. Many of these are cases of maladjusted personality, which can be treated by individual therapeutic regime. Others have specialized job disabilities and transfer is indicated. Individual departments may be studied with a view to making minor changes in working conditions or discovering further individual problems. Placement and counseling for young employees is stressed because of the high turn-over below the age of twenty. Clinical methods in selecting executives prove their value. These involve, not merely intelligence and special abilities, but personality, social background and detailed study of job behavior. Selection of automobile drivers reduced accidents 50%. H. B. Elkind: *Practical Application of Mental Hygiene and Industry.* A few case studies; for example, headaches due to uncongenial work and desire for sympathy. H. S. Person: *Mental Pitfalls of Leadership.* Those who are led must be willing. The leader must recognize the dynamic and changing elements in the situation. The good will theory in leadership is sound. A leader should surround himself by associates who can supplement his own weak points. K. M. Bowman: *The Industrial Aspect of Morbid Emotion and Fatigue.* Physiology of the emotions, blood pressure, etc. Morbid fears due to suppressed complexes. Individual differences in fatigability and susceptibility to monotony. The effect of noise. A. Myerson: *Fear and Nervous Energy.* The contagious and theatrical aspects of emotion. Abnormal fears often due to fatigue or over-emphasis of achievement. E. D. Smith: *The Minor Executive and Mental Hygiene.* A good personnel policy must be properly applied. If there is an industrial relations "fire" the dampening of enthusiasm is often as serious as the fire itself. The operating executive is the only one in real contact with the employee, and is the best one to do some mental hygiene work. He must consider the employee's past and future as well as his present.—*H. E. Burtt* (Ohio State).

2461. **Engelmann, W. Die Grundlage des psychotechnischen Gutachtens in der Berufsberatung.** (The basis of psychotechnical judgment in vocational guidance.) *Indus. Psychotech.*, 1930, **7**, 177–182.—(*Soc. Sci. Abst.* III: 1040).

2462. **Graf, O. Untersuchungen über die Wirkung zwangsläufiger zeitlicher Regelung von Arbeitsvorgängen. 1. Beiträge zur Erforschung der Arbeitsbedingungen bei Fliessarbeit.** (Studies of the effect of time control on work processes. 1. Contributions to the study of labor conditions in the continuous flow system.) *Arbeitsphysiol.*, 1930, **2**, 575–630.—(*Soc. Sci. Abst.* III: 992).

2463. **Harding, D. W. A note on the sub-division of assembly work.** *J. Nat. Instit. Indus. Psychol.*, 1931, **5**, 261–264.—The results here discussed suggest that an investigation into the optimal size of the work unit would probably be well repaid. In the experiment which the paper describes it did not appear that the simpler the operation the easier and better the output. With workers of average ability over-simplification led to boredom, absent-mindedness and liability to distraction. The workers' output was slightly higher with the larger unit chosen, and furthermore, whereas with the simpler task the output reached its maximum early in the week, with the more complex task the output rose steadily throughout the week.—*M. Drury-Smith* (Cambridge, England).

2464. **Herwig, B. Eignungsuntersuchungen von Kaufleuten und Beamten, zugleich ein Beitrag zur Methodik der Persönlichkeitsdiagnose.** (Aptitude tests of business men and officials, a contribution to the methodology of personality diagnosis.) *Indus. Psychotech.*, 1930, **7**, 225–243.—(*Soc. Sci. Abst.* III: 2876).

2465. **Hoffman, K. A German study of alcohol in motor accidents.** *Sci. Temperance J.*, 1930, 39, 78–83.—(*Soc. Sci. Abst.* III: 3377).

2466. **Hunt, L. I., Manning, W. H. O'N., & Miles, G. H. The organization of works transport.** *J. Nat. Instit. Indus. Psychol.*, 1931, **5**, 265–273.—A 50% increase in truckers' speed in handling loads in a machine manufactory, and a 12½% increase in the bonus earnings of the men, resulted from the Institute's reorganization of the internal transport, and of the introduction of a system of incentives. Concurrently the costs of internal transport were reduced by nearly 40%. The establishment of a central coordinating authority, the elimination of delay and waste of energy, the introduction of standards of performance and of methods of operation, were, together with the provision of suitable incentives, the means by which these improvements were brought about.—*M. Drury-Smith* (Cambridge, England).

2467. **Loriga, G. The cinema and the study of fatigue.** *Int. Rev. Educ. Cinematography*, 1930, **2**, 913–916.—(*Soc. Sci. Abst.* III: 2877).

2468. **Loriga, G. Work and fatigue.** *Int. Rev. Educ. Cinematography*, 1930, **2**, 917–925.—(*Soc. Sci. Abst.* III: 2883).

2469. **Luchsinger, F. Ermüdungserscheinungen bei einer Hausfrau.** (Signs of fatigue in a housewife.) *Psychol. Rundschau*, 1931, **2**, 319–320.—A study is made of a person who has changed from an energetic house-wife, zealous in the care of her home, to a personality showing marked signs of indifference and neglect, with accompanying tendency to extreme weariness. Suggestions are made as to relief from routine, a new environment, new interests, and finally a better organization of labor with periods of relaxation and different employment.—*A. B. Herrig* (Michigan Central State Teachers College).

2470. **Luithlen, W. Die Eignungsprüfung für Facharbeiter-Lehrlinge bei der AEG.** (Aptitude tests for specialty apprentices in the German General Electric Company.) *Indus. Psychotech.*, 1930, **7**, 161–166.—(*Soc. Sci. Abst.* III: 1049).

2471. Malvano, M. L. **Cinematography and the prevention of accidents.** *Int. Rev. Educ. Cinematography*, 1930, 2, 926-948.—(*Soc. Sci. Abst.* III: 2884).

2472. Manning, W. H. O. **Industrial psychology and production planning.** *J. Nat. Inst. Indus. Psychol.*, 1930, 5, 202-213.—(*Soc. Sci. Abst.* III: 2854).

2473. Marbe, K. **Über Psychologie des Befehlens.** (The psychology of giving orders.) *Indus. Psychotech.*, 1930, 7, 193-198.—(*Soc. Sci. Abst.* III: 1050).

2474. Mayo, E. **Supervision and morale.** *J. Nat. Instit. Indus. Psychol.*, 1931, 5, 248-260.—The writer describes an experiment conducted with members of the Western Electric Company in Chicago. The aim of the experiment was to discover more definite information about certain questions regarding the effects upon employees of the conditions under which they worked. A group of employees was segregated and the effects of various changes in the conditions of work were observed, particularly unanticipated changes. The experimental group, consisting of six women, worked at assembling telephone relays. A complete output record for each girl for every fifteen minutes of every day for two and a half years was obtained, and the group worked through twelve experimental changes of working conditions. The type and duration of these changes are shown in a table; they were mainly rest periods of different incidence and length, with or without mid-morning lunch, also changes in the length of the working week. The effects of the various changes are shown in a series of charts. The improvement in production though continuous and steady was at the same time "startling" and "puzzling," seeming to some extent to be independent of the changes in conditions. It appeared to be explained largely by the change in the mental attitude of the girls to their work and to their superior officers, the greatest change in conditions being apparently the provision, in place of a "gang-boss" supervisor, of an impartial and sympathetic person to observe and supervise. This fact led to a complete revision of the company's conception of supervision and of its method of training supervisors. In so far as outside difficulties, such as home circumstances or emotional disturbances, are reflected in variations in production, the provision, as supervisor, of a good listener interested in the whole range of conditions likely to influence output tended to lessen the degree of distraction from external factors. Pay incentive, it was found, did not stimulate production if other working conditions were unsuitable.—*M. Drury-Smith* (Cambridge, England).

2475. Miles, G. H. **The psychology of accidents.** *J. Nat. Inst. Indus. Psychol.*, 1930, 5, 183-192.—(*Soc. Sci. Abst.* III: 1079).

2476. Munro, M. S., & Raphael, W. **Selection tests for clerical occupations.** *J. Nat. Inst. Indus. Psychol.*, 1930, 5, 127-137.—(*Soc. Sci. Abst.* III: 1051).

2477. Niceforo, A. **The application of the cinematograph to scientific management.** *Int. Rev. Educ. Cinematography*, 1930, 2, 803-839.—(*Soc. Sci. Abst.* III: 2857).

2478. Pommerenke, H. **Quelques applications des methodes psychotechniques à la selection et à l'orientation du personnel ouvrier dans une usine de construction mécanique.** (Some applications of psychotechnic methods in the selection and placement of the workers in a machine shop.) *Rev. econ. int.*, 1930, 22-23, 231-241.—(*Soc. Sci. Abst.* III: 2879).

2479. Simonson, E., & Dolgin, P. **Rationalisierung industrieller Arbeit nach physiologischen Gesichtspunkten.** (Rationalization of industrial labor from the physiological standpoint.) *Arbeitsphysiol.*, 1930, 3, 254-275.—(*Soc. Sci. Abst.* III: 1053).

2480. Stewart, E. M. **Personnel research agencies.** (1930 ed.) *U. S. Bur. Labor Stat. Bull.*, No. 518, 1930. Pp. 197.—(*Soc. Sci. Abst.* III: 1055).

2481. Thun, R. **Work studies with the help of the cinematograph.** *Int. Rev. Educ. Cinematography*, 1930, 2, 849-885.—(*Soc. Sci. Abst.* III: 2681).

2482. Tinsley, J. **Selecting, training and appraising foremen.** *Nat. Indus. Conf. Board Service Letter on Indus. Relations*, 1930, (63), 1-3.—(*Soc. Sci. Abst.* III: 1056).

2483. Wiggam, A. E. **What the scientists are doing in personnel research.** *Person. J.*, 1931, 9, 392-400.—Author reports that the question most frequently asked by audiences deals with choice of life work. Modern business has discovered that happiness is profitable. Slave labor did not pay because the worker was unhappy. "Sense of self-importance" should have opportunity to develop. Psychologists' greatest contributions to personnel research have been in the fields of emotions and of special mechanisms, skills and abilities. Occupational information is an important aspect of vocational guidance. Brief mention is made of a rather large number of research projects in the field of personnel work, with special emphasis on the Western Electric experiments at Hawthorne.—*H. E. Burtt* (Ohio State).

**[See also abstracts 2090, 2186, 2192, 2540.]**

## CHILDHOOD AND ADOLESCENCE

2484. [Anon.] **Trieb und Tradition im Jugendalter.** (Drive and tradition in youth.) *Psychoanal. Bewegung*, 1931, 3, 81-84.—The author gives a history of the keeping of diaries by young people, suggesting that their use was largely motivated by parents and teachers. He discusses Bernfeld's monograph on this subject and agrees with him in seeing in the diary an effort at sublimation of inner conflicts, the attempt to harmonize conflicting urges. He believes there is much of significance in them for mental analysis of the writer.—*A. B. Herrig* (Michigan Central State Teachers College).

2485. Appel, K. E. **Drawings by children as aids to personality studies.** *Amer. J. Orthopsychiat.*, 1931, 1, 129-144.—Description of a method for gaining the confidence of children, as well as consider-

able information regarding home life, conflicts, attitudes, etc., by having them draw pictures of the home, of all the members of the family, etc., as well as interpret blottoes and standard ink blotches. The results from one case study and many of the questions asked to lead the child on are reported.—*D. E. Johannsen* (Rochester).

2486. **Boorman, R. W. Personality in its teens.** New York: Macmillan, 1931. Pp. xv + 258. $2.50. —This study was made, with the cooperation of the Y. M. C. A. College of Chicago, for the purpose of evaluating the contribution of the Hi-Y club to the lives of its members. The method used is extensive correspondence over a period of several years with 20 boys ranging in age from 11 to 20 years. The boys represent three groups; those who are outstanding leaders in high school, those who play minor rôles, and those whose status is changeable from time to time and from group to group. Extracts from these voluminous letters are grouped under the following subjects: home life; companions and social groups; girl friends; athletics; choosing a vocation; ideals and morals; religion and philosophy. The result is a composite picture of the boy's point of view and of his reactions to these situations, which is typical in so far as the boys taking part in the study are typical high school boys.—*M. P. Montgomery* (Faribault, Minn.).

2487. **Brown, M. Continuous reaction as a measure of attention.** *Child Development*, 1930, **1**, 255–292.—Defining attention "as the integration of all relevant processes, physiological and psychological, in a total response pattern," and assuming on the basis of this definition "that a measure of efficiency in performing a simple motor act is also a measure of attention," the author has devised an experiment for studying the attentive responses of five-year-old children. A modification of Dunlap's LVN apparatus was used. The activity studied was "the pressing of one of a row of telegraph keys corresponding to a row of 4 lights." Five one-minute tests were made on each of ten consecutive days. 16 subjects were used in the main experiment. The chief findings are: (1) An improvement occurred in the ability to perform the task required. (2) "This improvement was closely accompanied by reduction in variability of performance. (3) Both variability and level of final achievement appear to be functions of the ability to distribute attention over a field, an ability which is, in itself, a point of individual difference and subject to modification. (4) There is no evidence that position is a determinant of attention. . . . (5) A condition of emotional stability appears to be essential for successful response in all situations requiring concentration of attention." A review of the relevant literature is included.—*W. McTeer* (Detroit City College).

2488. **Busemann, A. Die Geschwisterschar als Milieu des Kindes.** (Brothers and sisters as children's environment.) *Zsch. f. Völkerpsychol. u. Soziol.*, 1930, **6**, 398–414.—The following are samples of the results which the author offers on the basis of his comparative statistical studies of siblings as environmental influences upon each other: (1) The optimum number of brothers and sisters from the standpoint of school standing and report (deportment, industry, etc.) is from 2 to 3. Neither only children nor those from larger families do so well. (2) The more brothers (sisters) a girl (boy) has as compared with sisters (brothers) the lower the standing in school. (3, a) In small families (up to two children) children of lower age rank lower in school; (b) when there are more than two (parents being workers) the children of higher age rank lower in school. In opposition to Alfred Adler, the author finds that the youngest girl child is more content with herself and her lot than any other.—*J. R. Kantor* (Indiana).

2489. **Chapin, F. S. The child's enlarging social horizon.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, 151, 11–19.—(*Soc. Sci. Abst.* III: 1544).

2490. **Conklin, A. M. A study of the personalities of gifted students by means of the control group.** *Amer. J. Orthopsychiat.*, 1931, **1**, 178–183. —The study group included 67 high school students (45 boys, 16 girls) with IQ's ranging from 130 to 163, mean 135.61, who had failed or were failing in 2 or more high school subjects. This was called the unadjusted group. The control group was selected from students not failing in any subject, and was matched for sex and IQ. The C.A. range was from 11 to 16 years, the mean of both groups being 13.9 years. The groups were mainly a first generation immigrant group. The group was given a personal interview by a psychiatrist, the social case history was taken by a trained worker, physical and anthropometrical examinations were given, and the students wrote standard life histories and sex questionnaires, and had personal interviews with the examiner. The results indicate that according to the accepted standards over 50% of both groups present behavior that would be considered atypical. The suggestion is made that perhaps behavior such as we have been looking on askance as indicating maladjustment, is really normal, and that we ought to search for some more fundamental cause—for something that would distinguish the one group from the other. The method of control groups is looked upon as the only scientific method of discovering the facts. —*D. E. Johannsen* (Rochester).

2491. **Courtney, D. M., & Johnson, B. Skill in progressive movements of children.** *Child Development*, 1930, **1**, 345–346.—Data are presented which were collected in an attempt to get measures of the ability of pre-school children to maintain body balance while walking on a raised pathway. A "walking board" apparatus is described in detail. "The board appears to be promising as a measure of individual differences in body movements within a given age group and in comparison of development from year to year. The emotional elements of behavior play a large part in the variability of performance. This requires more difficult technique for obtaining measurements of motor skill but also offers an opportunity for study of emotional responses."—*W. McTeer* (Detroit City College).

2492. **Friedjung, J. K. Das Kind als Selbstmörder.** (Suicides of children.) *Bereitschaft*, 1930, **10**, 83–85.—(*Soc. Sci. Abst.* III: 1546).

2493. **Gatewood, M. C., & Weiss, A. P. Race and sex differences in newborn infants.** *J. Genet. Psychol.*, 1930, **38**, 31–49.—78 infants were observed under experimentally controlled conditions, including periods of no stimulation and periods of stimulation by light, sound, temperature, odor, holding arms, and holding nose. Some 65 different kinds of movements were noted. Negro infants appeared less active than white, and males less active than females. The sexes of the negroes differed more from each other than those of the whites. The increases of number of movements observed during the stimulation periods over the number during no stimulation are in the following ratios: white female 148%, white male 364%, negro female 122%, negro male 331%. Whether such sex and race differences are significant for subsequent development requires investigation over longer periods.—*J. F. Dashiell* (North Carolina).

2494. **Germann, P., & Franke, E. Zeichnungen von Kindern und Jugendlichen aus dem Waldlande von Nord-Liberia.** (Drawings by children and youths from the forest of Northern Liberia.) *Ethnol. Studien*, 1929, 75–96.—(*Soc. Sci. Abst.* III: 1997).

2495. **Gesell, A. A decade of progress in the mental hygiene of the preschool child.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, **151**, 143–148.—(*Soc. Sci. Abst.* III: 3402).

2496. **Grzegorzewska, M. The care of morally abandoned children in Poland.** *Rev. int. de l'enfant*, 1930, **9**, 212.—(*Soc. Sci. Abst.* III: 3390).

2497. **Hopkins, C. D., & Haines, A. R. A study of one hundred problem children for whom foster care was advised.** *Amer. J. Orthopsychiat.*, 1931, **1**, 107–128.—100 cases, brought to the Institute for Juvenile Research during 1927, were removed from their own homes because of "thoroughly unsatisfactory home situations" and placed in foster homes. A control group of non-problem children in foster homes was secured from the main child-placing agencies in Chicago. With one exception the children were American-born, and exactly half were of native stock. The mean IQ for the boys was 90 and for the girls 84. The group was composed of 67% boys and 33% girls, ranging from 1 to 17 years, with a concentration at the 10-year level. Of the group 72% were judged successful in the foster home (i.e., a progressive improvement in overcoming faults) while 19% were judged unsuccessful (i.e., delinquencies persisted and personality difficulties remained, so that they did not adjust to family life), and 9% were indeterminate. Several of the children had to be tried from 2 to 12 times in different homes before they fitted into the home group. In the control group, however, the same trial-and-error method had to be used. There is a very slight tendency for the younger children to adjust more successfully than the older. Children of average intelligence are more likely to succeed.—*D. E. Johannsen* (Rochester).

2498. **Hubbard, R. M. Intellectual ability of children studied by a child guidance clinic.** *J. Juv. Res.*, 1931, **15**, 33–43.—Children referred to the Cleveland Child Guidance Clinic who were wholly or in part community charges or under the guidance of social agencies ranked lower mentally and in school progress than did the general run of clinic cases. The IQ's of the children examined by the clinic tended to be directly related to the social-economic status of the parents.—*H. L. Koch* (Chicago).

2499. **Hurlock, E. B. The will-temperament of white and negro children.** *J. Genet. Psychol.*, 1930, **38**, 91–100.—110 white and 101 negro boys from the seventh and eighth grades in a New York school were examined. Higher scores were made by whites on speed of decision and movement and volitional perseveration, by negroes on self-confidence, finality of judgment, motor inhibition, and coordination of impulses, with no advantage to either on freedom from load. Other tests were omitted as unsuitable with children. In nearly all cases the differences found were not statistically significant.—*J. F. Dashiell* (North Carolina).

2500. **Hurlock, E. B., & Sender, S. The "negative phase" in relation to the behavior of pubescent girls.** *Child Development*, 1930, **1**, 325–340.—The authors report a study of "negative phase" (a behavior period of two to nine months in length which precedes puberty, according to Charlotte Bühler of Vienna) as it is described in the literature, as it is reported in a questionnaire sent to teachers, matrons of homes and others, and as it appears in court records of juvenile sex delinquencies. The new data of this study were collected in various sections of the city of New York. The authors advance the following conclusions: (1) "that generally restlessness and instability are concomitants of puberty in girls, but whether this disquietude becomes marked enough to be outstanding depends upon a number of factors, the most important of which are environment and home training. The girls reported showing the behavior characteristic of this phase were from inferior social and economic levels; they lived in poor, congested neighborhoods; were unsupervised in their play and conduct; and suffered from deplorable and undesirable home conditions. . . . (2) The occurrence of sexual delinquency, it would seem, may be conditioned by a great many factors: insufficient supervision by parents, subnormal intelligence, bad companionship, physical inferiority, debasing surroundings in the home and neighborhood rather than physiological development." The authors lay emphasis upon considering the peculiar personality of the individual which is played upon by emotional appeal as being the fundamental factor in the situation rather than immediate environment or low mental caliber.—*W. McTeer* (Detroit City College).

2501. **Irwin, O. C., & Weiss, A. P. A note on mass activity in newborn infants.** *J. Genet. Psychol.*, 1930, **38**, 20–30.—Dividing the behavior of newborn infants into the two categories of specific

movements (these involving single segments and occurring at rates slow enough to be discriminated) and mass activity (organismic or non-segmental activity at a rate too rapid for analysis and without interruption), the observers have noted a heavy preponderance of the former in 24-hours-a-day observation of four infants during their first 10 days. After several references to the neurological literature, it is maintained that during this period the infant is truly a thalamic (non-cortical) organism.—*J. F. Dashiell* (North Carolina).

2502. **Jones, H. E. The retention of conditioned emotional reactions in infancy.** *J. Genet. Psychol.*, 1930, 37, 485–498.—The term "conditioned emotion" has been applied loosely to every sort of acquired emotional reaction without experimental substantiation. In this research conditioned galvanic skin reflexes using foot electrodes were established in three infants and five nursery school children by associating a light, a touch, and a variety of sounds with an electrotactual stimulus originally evoking the GSR. Results on one subject are presented in detail. They exhibit extinctive inhibition (usually following 4 or 5 unreinforced stimulations), reappearance after rest periods (of as much as 10 days), reappearance by reinforcement, sleep (induced by repetition of the unreinforced conditioned stimulus). In spite of frequent extinction a C-R survived at least seven weeks without reinforcement. The results show the galvanometric method to have special advantages in that objective recording of infant emotional responses is made possible, and this without severe provocative stimulation. More generally, also, they indicate that the C-R concept, as evolved by Pavlov and adopted by Watson and others, is satisfactorily applicable to the modification of emotions in infancy.—*J. F. Dashiell* (North Carolina).

2503. **Lee, M. V. The Children's Orthopedic Hospital: a survey of the intelligence of crippled children.** *J. Educ. Res.*, 1931, 23, 164–166.—Study by the Stanford-Binet of 148 patients at the Children's Orthopedic Hospital at Seattle indicates that the intelligence level of this group is appreciably below that of an unselected group of physically healthy children.—*S. W. Fernberger* (Pennsylvania).

2504. **Levy, J. A quantitative study of the relationship between intelligence and economic status as factors in the etiology of children's behavior problems.** *Amer. J. Orthopsychiat.*, 1931, 1, 152–162.—The material studied came from 700 case histories of the Institute for Juvenile Research in Chicago. The age range was from 3 to 18 years, with the median around 11 years; two-thirds of the cases were boys. The only selection used was to eliminate all cases with an IQ below 80. There is found a definite relationship between intelligence and the type of behavior problem presented, the more intelligent children more frequently presenting personality and emotional problems, the less intelligent more frequently presenting anti-social conduct problems. In general, the children of the higher economic levels present personality problems and the children of the lower economic levels social problems, but the intelligence is a stronger factor than the economic. The closer relationship between behavior and intelligence than between behavior and economic level might be stated in terms of nature versus nurture. Another suggested explanation is in terms of the development of the self, the brighter child narrowing down the concept of the self more than the duller child, and thereby struggling with his own personality rather than with the external environment.—*D. E. Johannsen* (Rochester).

2505. **Lowrey, L. G. Clinical facilities for the study of personality and behavior problems in children.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, 151, 138–142.—(*Soc. Sci. Abst.* III: 3403).

2506. **Meyer, P. Über die Fähigkeit der Kinder zum logischen Schliessen.** (The ability of children to reason logically.) *Arch. f. d. ges. Psychol.*, 1930, 78, 1–46.—The author tested 149 children, 6–9 years old, with a number of simple syllogisms. After presenting the premises, e.g., "Fritz is taller than Max; Max is taller than Ernst," he asked them (1) "What can you say now?" In case of failure he asked (2) "What can you say about Fritz and Ernst?" And in case of another failure he finally asked (3) "Who of these two is the taller?" He was thus able to get three grades of answers. Children that had just entered school were found to be about as good as those having had one year of schooling. Considerable development in logical reasoning takes place in the second and third years of schooling as shown especially by the higher percentages of correct answers to questions (1) and (2). The results were also correlated with the teachers' judgments and school grades, yielding positive coefficients ranging between .28 and .74. The author believes, however, that the real correlation between logical reasoning and intelligence must be higher. Finally the results are discussed in connection with the literature on the problem.—*K. F. Muenzinger* (Colorado).

2507. **Morgenstern, S. La psychanalyse infantile et son rôle dans l'hygiène mentale.** (Child analysis and its rôle in mental hygiene.) *Rev. fr. de psychanal.*, 1930–1931, 4, 136–162.—The chief object of education is to teach the child to renounce the pleasure-principle in favor of the reality-principle. A brief review of the stages of sexual development and the reasons for arrest or regression to any particular lower stage is followed by a discussion of the advantages of preventing such arrest or regression by analysis. A number of case studies are reported. —*D. E. Johannsen* (Rochester).

2508. **Morsh, J. E. The development of right-handed skill in the left-handed child.** *Child Development*, 1930, 1, 311–324.—An experimental study of the development of right-handed skill in tracing, dart-throwing, mirror star-tracing and writing by two left-handed children. Charts are given which show hand-preference in major activities, and scores in tests of motor control. The learning experiments were carried on at weekly and bi-weekly intervals during a period of five months. Marked improvement occurred in all of the skills studied. The author concludes that "If the child is started early enough, if

the teacher or parent is tactful and patient, and if the method used is one which minimizes to the lowest degree the importance of the writing done and places sufficient emphasis outside the writing—emphasis which diverts the attention from such things as the awkward 'feel' of the pencil in the hand, poor coordination . . ., undeveloped musculature, etc.—then success is assured." There was no evidence of the development of stuttering or stammering during the course of the experiment.—*W. McTeer* (Detroit City College).

2509. **Müller, C. V. Experimentelle Untersuchungen über kindliche Schlussprozesse mit besonderer Berücksichtigung der Vorgänge der Repräsentation.** (Experimental investigations of logical inferences in children with special consideration of the processes of representation.) *Arch. f. d. ges. Psychol.*, 1931, **78**, 379–494.—School children, 6–8 years old, were tested with syllogisms containing relations of space, time, size, equality, and part-whole. The author, distinguishing between "representative" and "non-representative" inferences (i.e., between inferences with and without imagined concrete situations), found that the first type was the most frequent with younger children and then decreased in frequency with increasing age. In cases of young children where there was no ability to draw any inferences from the premises the correct situations as described by the premises were often imagined. More difficult situations were sometimes translated into simpler ones, e.g., temporal or larger-smaller relations into spatial ones.—*K. F. Muenzinger* (Colorado).

2510. **Neumeyer, M. H. Conscience behavior of children.** *Sociol. & Soc. Research*, 1930, **14**, 570–578.—(*Soc. Sci. Abst.* III: 1551).

2511. **Oakley, C. A. The interpretation of children's drawings.** *Brit. J. Psychol.*, 1931, **21**, 256–270.—In view of the closeness of spontaneous drawing to the child's interests, its relative freedom from both training and the personality of the examiner, its non-verbal character and its simple and ready application, it was considered unfortunate that it has so far played so little part in the standard systems of mental testing. The writer of this paper therefore is endeavoring to devise objective scales for the measurement of children's drawings. The paper under consideration occupies itself with a discussion of the interpretation of drawings. It considers existing scales for determining drawing mental ages, what is the most suitable object to be drawn by the child, whether the child should be left free in his choice of subject, the part played by intelligence, so far as interpretation of the scores is concerned, and how and why children learn to draw. It also discusses the nature of the visual and motor schemata upon which drawing is supposed to be based, the initiating motive of drawing, and the significance of the growth of the schema; it concludes by suggesting three scales for examining drawings.—*M. Drury-Smith* (Cambridge, England).

2512. **Ogburn, W. F. The changing family with regard to the child.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, **151**, 20–24.—(*Soc. Sci. Abst.* III: 3293).

2513. **Owens, A. A. The behavior-problem boy. A socio-educational survey.** Philadelphia: Univ. of Pennsylvania, 1929. Pp. 188.—What constitutes a behavior-problem boy? To what extent are specialized schools more effective in making necessary social adjustments in pupils than the regular schools? How does time spent in a disciplinary school affect the boy's post-school career? These are the questions upon which this survey purposes to throw light. The data were secured from the William A. Lee School in Philadelphia. 1300 boys are represented. The findings are presented chiefly in tables (white and negro boys tabulated separately), with comments and explanations by the author and a summary of conclusions. Behavior-problem boys are considered to be those whose behavior causes them to be placed in the disciplinary school. Truancy is the predominating form of misbehavior, although this is usually associated with other anti-social tendencies. The boys are not interested in ordinary classroom activities, and are hostile to authority. Nearly half have court records. The great majority were in difficulty one year or more before transfer to the Lee school. Physically, they are average; intellectually, below average; educationally, retarded. More often than not they come from abnormal homes in poor neighborhoods, with mothers employed outside the homes. The average problem boy does not like to work, and after remaining about one year in the disciplinary school (which usually concludes his education) he seems to be unprepared to earn his living and is not an economic success. Improvement might be made by segregation at an earlier age; more guidance in choice of work; correction of physical defects; and study of post-school careers to determine the value of the curriculum. There is a bibliography of 137 titles. Results from some of these are quoted for comparison with the present findings. The appendix includes samples of report, case history, and home grading blanks, and summaries of some case studies. —*M. P. Montgomery* (Faribault, Minn.).

2514. **Perkins, N. L. Personality studies in a nursery school group: a critique of the Marston questionnaire.** *Amer. J. Orthopsychiat.*, 1931, **1**, 193–221.—23 normal children from 24 to 54 months of age (average 46 months) were rated by 9 raters on the Marston Introversion-Extroversion Rating Scale. The children were all American-born of American-born parents from professional groups, and had IQ's ranging from 92 to 161. The results show that the more definite "types" show the greatest agreement among the raters. It is felt that many of the items are rated as they are in the majority of children because those traits are characteristic of the age studied. In general, the scale seems more diagnostic of age level development than of personality trends at the 2- and 3-year levels. The outstanding result is the high percentage (50%) of definitely extrovert reactions shown by the entire group of children, whether based on gross ratings per trait or the number of individual children positively scored per trait.—*D. E. Johannsen* (Rochester).

2515. **Sherman, M. The afternoon sleep of young children: some influencing factors.** *J. Genet. Psychol.*, 1930, **38**, 114–126.—Factors influencing the character and duration of the afternoon nap taken by 22 children between 2 and 3½ years of age were studied daily during eight months. Data on movements in sleep were obtained by pneumatic connections between their beds and tambours. The average length of sleep was found to be 89 minutes, the children usually falling asleep and awakening quickly. An inverse relationship appeared between the length of wakeful period before sleep and the length of the sleeping period. Much activity did not tend to prolong sleep, nor did outdoor play as against indoor. The duration of the afternoon nap had no influence upon the activity nor upon the emotional and social behavior. A child who habitually sleeps but a half-hour every afternoon develops as normally as a child who sleeps two and a half hours.—*J. F. Dashiell* (North Carolina).

2516. **Skalet, M. The significance of delayed reactions in young children.** *Comp. Psychol. Monog.*, 1931, **7**. Pp. 82.—The author studied the delayed responses of a group of 60 pre-school children to the position of a concealed object, to familiar forms, to geometric forms, and to unfamiliar forms. Her aim was to obtain statistically reliable results concerning the maximum period of delay under these various conditions; to make a detailed analysis of the behavior of the subjects during the presentation of the stimulus, during the period of delay, and during the final response; to analyze the verbal responses of the subjects, individual differences, etc. The method was, in each case, a direct one. Under the conditions in which a concealed object was used the maximum delays ranged from 1 to 34 days. The older children and those with higher mental ages manifested greater ability to delay their responses successfully than did the younger children or children of lower mental age. When familiar forms were used the delay was also from 1 to 34 days. A marked perseverative effect of previous stimuli was noted. There was the closest relationship between the responses in this experiment and the subjects' chronological and mental ages. In the case of the geometric and unfamiliar forms, the delays were all less than 4 days. Throughout all of the tests the importance of verbalization was noticeable. Many case studies are presented and a program for further research is outlined. 25 references.—*N. L. Munn* (Pittsburgh).

2517. **Small, Mme. L'enfant à la maison.** (The child at home.) *Nouvelle éduc.*, 1930, **9**, 105–115.—(*Soc. Sci. Abst.* III: 1553).

2518. **Speich, R. Beitrag zum Verständnis sexueller Verwahrlosungssymptome bei Kindern.** (A contribution to the understanding of sex symptoms arising in a child due to neglect.) *Psychol. Rundschau*, 1931, **2**, 315–319.—This is a concluding article citing a case of long neglect and guidance of a youth and the behavior disorders that arose as a consequence. A hyper-motility is characterized by pantomimic and speech performances, a desire to dramatize, to play tricks and to crack jokes. These appear as compensations for ambivalent restraints. Onanism is to be explained on this ground. There is present a high sensitiveness to surroundings, resulting in irritability. Persons and situations are used for self-exploitation, a compensation for early lack of attention. The author shows how these, and other characteristics making training difficult, rest on the early neglect. Recommendations for further treatment include social therapy, play and work therapy, intellectual culture and guidance.—*A. B. Herrig* (Michigan Central State Teachers College).

2519. **Taft, J. A changing psychology in child welfare.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1930, **151**, 121–129.—(*Soc. Sci. Abst.* III: 3388).

2520. **Taussig, H. P. Talks on mental hygiene to classes of grammar school children.** *Amer. J. Orthopsychiat.*, 1931, **1**, 184–192.—Description of the method used to bring out the advantages of "growing up" to children of the grades (4th to 8th). The discussion method was used, the children being urged to bring out the advantages and disadvantages of being a "baby" and of being "grown up." In the time used (from 3 to 6 half-hour sessions) considerable progress was made in having the children see through their own tendencies to remain "babies."—*D. E. Johannsen* (Rochester).

2521. **Towle, C. The treatment of behavior and personality disorders in children. B. The social worker.** *Amer. J. Orthopsychiat.*, 1930, **1**, 21–38.—The worker-patient relationship is essentially a parent-child one, the social organization functioning as a source of parental security. Clues to the type of treatment to be given each individual case are to be found in the life histories of the individuals concerned. Any social examination and treatment must be so planned as to give careful consideration to the emotional interplay of all the individuals in the group from which the patient comes. Mother-child relationships may be roughly classified into two groups: (1) the depriving mother; (2) the overprotecting mother; with subdivisions under each. In focussing treatment, the more mature or secure parent is generally the key person in a treatment plan. Observations are included which should prove helpful in the treatment of the different types of mother-child relationship.—*C. W. Brown* (California).

2522. **Tulchin, S. H. The treatment of behavior and personality disorders in children. C. The psychologist.** *Amer. J. Orthopsychiat.*, 1930, **1**, 39–47.—The clinical psychologist must be more than a mental tester; it is necessary for him to have an intimate knowledge of the technique of the psychiatrist and psychiatric social worker. He knows that there is more to human mind than intelligence and that a measurement of intelligence is not an adequate description of an individual's mental make-up. Qualitative, as well as quantitative, evaluation of test results is essential. In this way important leads for clinical analyses are obtained. The behavior of the individual in the test situation gives opportunity for making observations on such traits as general quality of responses, methods of attacking problems, learning from experience, evenness of temperament, plan-

fulness and many others. Special dislikes may handicap an individual in particular subjects. Sixteen possible reasons to account for such dislikes are given.—*C. W. Brown* (California).

2523. **Underwood, A. Investigations in the study of language.** *J. Educ. Res.*, 1931, **23**, 162–164.—Study of mistakes made in the study and use of language with a case study of a boy of 5 years at Peabody College. Remedial measures are indicated.—*S. W. Fernberger* (Pennsylvania).

2524. **Updegraff, R. The visual perception of distance in young children and adults: a comparative study.** *Univ. Iowa Stud.: Stud. Child Welfare*, 1930, **4**, No. 4. Pp. 102.—The aims of the study were to investigate the acuity in visual perception of distance of four-year-old children, to study the influence on this acuity of two factors, size of the retinal image and linear perspective, and to compare the resulting data with other data similarly obtained through experimentation with adults. Apparatus was constructed to determine acuity at a distance of five meters. The observations were made in a dark room on the nearer of two light stimuli, and a comparison was made of the thresholds thus obtained with those obtained after variation of the size of the retinal image and of the linear perspective. Two other techniques for studying distance perception in children were tried out in a preliminary way. The first investigated acuity at a range of 195 meters and the second at one meter. Ten children and six adults were observers in the main experiment. Eighty-nine children and fifteen other adults observed in the supplementary experiments. Children four years of age were consistent, reliable and cooperative observers in almost daily experimentation for three or more months. The acuity of perception of the relative distance of objects varying around a standard visual angle of 1° 21′ 39.3″ (12 cm. diameter) at 505 cm. was surprisingly alike for young children and adults. There was no significant difference between children and adults in variability of successful response from day to day. The range of acuity varied more among children than among adults. Individuals differed concerning the extent to which their judgments were influenced by variations in the size of the retinal image and linear perspective. 90% of the children distinguished an angle difference of 31.28″, 6 m. back of the standard of 195 m., and 73% distinguished an angle difference of 24.16″, 6 m. back of the standard. The children could not distinguish differences of three meters at this distance. The technique for determining visual perception of distance at one meter was found to be applicable to children two and one-half to four years of age.—*B. Wellman* (Iowa).

2525. **Warner, M. L. Eugene, a brilliant boy who failed in school.** *Psychol. Clin.*, 1930, **19**, 143–155.—The case of a boy 11 years and 11 months old, IQ 142, who was expelled from two schools because of poor work and bad behavior. The difficulty was that his work was too easy for him and that he had developed a habitual disobedience of teachers. His conduct at home, except when school work was involved, was good. After a year in a special school he was sent to a junior high school and did excellent work.—*J. T. Metcalf* (Vermont).

2526. **Wechsler, D., Crabbs, L. M., & Freeman, R. G., Jr. Galvanic responses of preschool children.** *J. Genet. Psychol.*, 1930, **38**, 203–222.—With 30 children, aged 2 to 4 years, galvanic responses to a variety of auditory, visual, verbal and other stimuli were obtained; these were analyzed for various measures of galvanic responsiveness; and ratings of the children's emotional behavior (anger, depression, irritability, etc.) were obtained from staff members. Not only magnitude of response, but also spontaneous reactions, zero reactions, and the individual's variability were important indices of galvanic responsiveness. The tabulated results shown as coefficients of colligation tended to indicate that while the psychogalvanic technique is a practicable method of studying affective responses in preschool children, the correlations between galvanic readings and subjective ratings as to emotionality were low. This is probably not due to unreliability of the galvanic measures, but to that of the subjective rating methods.—*J. F. Dashiell* (North Carolina).

2527. **White, R., & Johnson, B. Children's choices in modern art.** *Child Development*, 1930, **1**, 347–349.—Eleven pictures ranging from impressionistic to realistic were presented to 15 children ranging in age from three years five months to five years five months, and records were kept of the first and of subsequent preferences of each child. In a second experiment, ten spontaneous crayon drawings of five four-year-old children were used for presentation to 28 children, ranging in age from two years four months to four years eleven months and records were kept of everything that each child named in the pictures. The authors conclude that "The drawings of children appear to have greater significance for other children than have the compositions of modern artists. There is also a relatively larger degree of universality in the names given by children to the spontaneous productions of other children of approximately the same age and environmental status."—*W. McTeer* (Detroit City College).

**[See also abstracts 2137, 2310, 2337, 2381, 2383, 2384, 2403, 2406, 2436, 2582.]**

## EDUCATIONAL PSYCHOLOGY

2528. **Blose, D. T. An age-grade study of 7,632 elementary pupils in 45 consolidated schools.** *U. S. Office Educ., Pamphl.*, No. 8, 1930. Pp. 20.—(*Soc. Sci. Abst.* III: 1652).

2529. **Buswell, G. T. Research and the degree of doctor of philosophy in education.** *J. Educ. Res.*, 1931, **23**, 146–152.—There are four limitations affecting the candidate for the higher degree when he is working on his dissertation: (1) the short period of time available for graduate study; (2) the cost of carrying on a comprehensive piece of research; (3) the limited professional training of the student at the time he must select his research problem; and (4) the lack of mastery of the techniques which the student must use in his research. Certain sugges-

tions are offered by the author.—*S. W. Fernberger* (Pennsylvania).

2530. **Buswell, G. T., & John, L. The vocabulary of arithmetic.** *Sup. Educ. Monog.*, 1931, No. 38. Pp. xi + 146.—A selected list of 100 arithmetical terms was given as a group vocabulary test to 1500 children in grades IV–VI from twelve school systems. Of the 100 words, 49 were technical terms such as decimal, product, ratio; 15 were terms relating to time, space, or quantity; 15 were terms relating to measurement; 16 were commercial terms and 5 were terms relating to spatial figures. The first class was found to be the most difficult, the second the least difficult. In spite of the general tendency toward improvement in score from grade to grade much overlapping in the distribution of scores within the three grades was found. The relative difficulty of the various terms differed widely from one school system to another, indicating that the course of study and the teaching procedure are important factors in determining the special vocabularies of children. Analysis of the incorrect responses showed constant misconceptions leading in a number of instances to modal responses other than the correct one. When completeness of understanding was checked by administering to 300 of the children three other tests in which 25 of the words from the main list were used in a slightly different form or context from the original one, it was found that in only 57% of the cases were responses completely consistent in all situations. This indicates that ability to respond to a word correctly in one situation does not necessarily mean that understanding is complete. Individual tests given to 40 children from each of the first six grades showed a decided relationship between grade and vocabulary and between vocabulary and intelligence-test standing. Chapters IV and V deal with the question of how new terms are introduced in textbooks and with the teaching of arithmetical terms.—*F. L. Goodenough* (Minnesota).

2531. **Corey, S. M. Certain ambiguous terms in educational psychology.** *J. Educ. Psychol.*, 1931, 22, 131–138.—Many words which are frequently used in educational psychology have no precise and standard meaning. The meanings attached to the words habit, learning, intelligence, and instinct are reviewed. It is suggested that new technical terms may be needed.—*J. A. McGeoch* (Missouri).

2532. **Davis, M. D. Kindergarten-primary education. A statistical and graphic study.** U. S. *Office Educ. Bull.*, No. 30, 1930. Pp. 41.—Statistics of enrollment and attendance in kindergartens in 3428 cities. Comparisons are made between mental ages of pupils in the kindergarten and first grade. For each of these groups there is an 80% overlap between C.A. and M.A. In the kindergarten the upper range of M.A. exceeds the C.A. while the case is reversed in the distribution of ages for the first grade.—*C. M. Louttit* (Ohio).

2533. **Eells, W. C. Publication of educational research.** *J. Educ. Res.*, 1931, 23, 31–42.—Summary of the replies from 59 of the leading educational journals regarding scope, field, length of articles, form of article, supply of reprints, etc.—*S. W. Fernberger* (Pennsylvania).

2534. **Ewart, F. C. Are Phi Beta Kappas "grinds"?** *J. Higher Educ.*, 1931, 2, 36–38.—416 Colgate graduates, representing 16% of the student body over a period of thirty years, are compared with the remainder of the student body on the basis of athletic record in college, participation in non-athletic activities, and positions obtained in the world (on the basis of inclusion in *Who's Who*. This investigation shows that on the average less than one (Phi Beta Kappa) each year took no part in student activities, and the author's interpretation of the general figures is that Phi Beta Kappas are superior throughout.—*R. A. Brotemarkle* (Pennsylvania).

2535. **Franke, P. R., & Davis, R. A. Changing tendencies in educational research.** *J. Educ. Res.*, 1931, 23, 133–145.—Analysis of several bibliographies for such topics as methods and techniques, research at various levels of education, and research in fields of education, arranged in decennial periods from 1890 to 1929, indicates the following: a great increase in the amount of work during the 40-year period has been especially marked during the last years; the methods of research have been more widely used, which is true for all levels of education; and the fields of educational measurement and statistics have contributed the greatest amount of research in recent years.—*S. W. Fernberger* (Pennsylvania).

2536. **Freeman, F. S. Predicting academic survival.** *J. Educ. Res.*, 1931, 23, 113–123.—The author attempts to answer the question regarding the extent to which the test of mental ability indicates the possibilities that a student will satisfy the requirements of his college so that he may remain a student. The Psychological Examination of the American Council of Education was employed. After statistical treatment of the results of some 375 cases, the author believes that in spite of some low correlations and much overlapping, "it does appear that there is a marked tendency for those students in the higher deciles to achieve better averages, to encounter fewer scholastic difficulties and to survive a greater number of terms." "But it must be admitted that marked as this tendency is, it is not sufficiently marked to warrant the exclusion of a student or a prospective student on the basis of mental tests alone"; they should be used merely as a source of supplementary information with other criteria.—*S. W. Fernberger* (Pennsylvania).

2537. **Garretson, O. K. Relationships between the expressed preferences and the curricular abilities of ninth grade boys.** *J. Educ. Res.*, 1931, 23, 124–132.—A study of the results of 1582 boys at an academic, a commercial and a technical high school in New York City. The students filled out a vocational questionnaire of 328 items, marking each as liked, disliked or indifferent. They were also tested with the Minnesota Paper Form Board, McQuarrie Test for Mechanical Ability, Ruggles Diagnostic Clerical Test, and Terman Group Test of Mental Ability. The author finds that the preference questionnaire

is an instrument well adapted to the investigation of the inclinations of pupils regarding the curriculum they should elect. There is little correlation, however, between the preference scores for the indication of inclination and the prognostic test scores. Hence the preference questionnaire cannot be profitably "employed in the prediction of the degree of success that will be achieved by the pupil within the field of his chosen activity."—*S. W. Fernberger* (Pennsylvania).

2538. **Gates, A. I. An experimental comparison of the study-test and test-study methods in spelling.** *J. Educ. Psychol.*, 1931, 22, 1–19.—The comparisons involve a total of 3236 records. In so far as differences appear at all, the study-test method yields larger gains in Grade II and in low Grade III, while the test-study method produces the larger gains from high Grade III to Grade VIII, inclusive. In general the brightest classes make larger gains under the test-study plan. The dull pupils tend to do at least as well under the study-test plan as with the other one. Retention tends to show results analogous to those for learning. A somewhat extended discussion of the relative advantages of the two methods is given.—*J. A. McGeoch* (Missouri).

2539. **Gates, A. I. What do we know about optimum lengths of lines in reading?** *J. Educ. Res.*, 1931, 23, 1–7.—After summarizing our present knowledge of the optimal length of lines for reading, the author concludes that there is, as yet, not enough evidence for the adoption of standards and that this situation is especially true for the reading of children.—*S. W. Fernberger* (Pennsylvania).

2540. **Gifford, W. J., & Shorts, C. P. Problems in educational psychology.** Garden City: Doubleday, Doran, 1931. Pp. xiv + 728. $3.00.—The fifth publication in the Teacher Training Series edited by Monroe. To be used by the beginning student in educational psychology either as a basal text or in connection with some text, particularly *Educational Psychology* by Monroe, DeVoss and Reagan. The 20 chapters are divided into 6 parts: introduction, biological foundations of behavior, motivation of behavior, learning, individual differences, and growth and development of personality. Three appendices furnish: a working library (12 titles), figures for use in experiment in perceptual learning, and foreign (Lithuanian and Russian) vocabularies for experiment in associative learning. Eleven figures deal largely with learning curves and frequency polygons. Thirteen tables include material on learning, individual differences and transfer of training. Following Thorndike, emphasis is placed upon original nature, individual differences, and the psychology of learning. Each chapter carries an orienting foreword, a summary of problems contained therein, learning exercises, and a short annotated bibliography. The author index shows about 170 titles, with the greater number of references drawn from Dashiell, Dewey, Freeman, Gates, Monroe, Thorndike, Watson, and Woodworth.—*L. M. Hatfield* (Canton, Ill.).

2541. **Gilbert, H. H. High-school students' opinions on reasons for failure in high-school subjects.** *J. Educ. Res.*, 1931, 23, 46–49.—Results of a questionnaire from 830 students at the Franklin High School, Los Angeles. The author finds that a feeling of inferiority plays a small part in their opinion of the reasons for failure.—*S. W. Fernberger* (Pennsylvania).

2542. **Grant, D. L. Intellectual life of alumni.** *J. Higher Educ.*, 1931, 2, 16–23.—The post-war development of alumni education is reviewed. An analysis reveals several varieties, such as more or less "systematic reading," "short courses or institutes," alumni periodical "articles of educational value," alumni days or "intellectual home-coming" during normal operation of the school term, and radio programs. Questionnaires returned by nearly one thousand alumni from a representative group of colleges and universities were studied on the basis of a list of seventeen intellectual factors or standards. The results indicate "that the alumnus is a projection of what he was as an undergraduate . . . same interests . . . failing to develop a new attitude." Instructional failure is blamed on the "endowment campaign," background, limited curriculum and a lack of "cooperative undertakings." Any solution seems to indicate that "institutional lines will have to be forgotten," and the necessity of differentiating "more clearly between training courses and essentially educative experience" in a continuous "all-inclusive completion of educational endeavor into which the undergraduate experience can fit beside the continuing non-resident intellectual experience of mature years."—*R. A. Brotemarkle* (Pennsylvania).

2543. **Hanske, C. F. The correlation between scores on objective tests in chemistry and Terman intelligence quotients.** *J. Educ. Res.*, 1931, 23, 49–54.—The Terman Group Test of Mental Ability and a chemistry achievement test were given to 230 pupils at the Emmerich Manual Training High School, Indianapolis. "The lack of agreement between ability and accomplishment in chemistry, as indicated by the correlation coefficients presented, must to some extent be attributed to the fact that our measures of ability and achievement are still far from being perfectly reliable, and to our inability to take into consideration the influence of qualifying factors having a tendency to attenuate results, i.e., health, interests, habits and distractions of pupils."—*S. W. Fernberger* (Pennsylvania).

2544. **Hurd, A. W. A study of achievement in various engineering and pre-engineering courses.** *J. Educ. Res.*, 1931, 23, 25–30.—The author raises the question as to whether engineering students exhibit distinctly specialized abilities in connection with their courses in the college of engineering as contrasted with their abilities in pre-engineering subjects. This problem is attacked by comparing achievement in such pre-engineering courses as physics and chemistry with the subsequent achievement in engineering school. The results from 162 students are given statistical treatment, and the author

finds that a large number of students showed relatively small variations between ratings in engineering and pre-engineering courses. "According to coefficients of correlation, the following four criteria rank highest in predicting success in engineering courses in order of rank: physics, all pre-engineering courses, chemistry and mathematics."—*S. W. Fernberger* (Pennsylvania).

2545. **Lotze, R. Untersuchungen über die gegenseitigen Beziehungen von Schulwahl, Schulleistungen, sozialer Zugehörigkeit und Kinderzahl.** (An investigation of the mutual relations between selection of a higher school, scholastic achievement, social class and size of families.) *Arch. f. Rassen- u. Gesellsch.-Biol.*, 1930, **23**, 129–165.—(*Soc. Sci. Abst.* III: 1670).

2546. **MacRae, A. A follow-up of vocationally advised cases.** *J. Nat. Instit. Indus. Psychol.*, 1931, **5**, 242–247.—This paper presents the results of the follow-up of 80 boys aged 15–20, educated at English public or secondary schools, who applied during the year 1927 for vocational guidance from the Institute in London. It would appear from the table given and from the notes on certain individual cases that there were over 85% of successful predictions, those boys who had followed the advice given by the Institute seeming to be both happier and more successful in their occupations than those who had not.—*M. Drury-Smith* (Cambridge, England).

2547. **Meili, R. Psychologische Untersuchungen in der Schule.** (Psychological investigation in the schools.) *Psychol. Rundschau*, 1931, **2**, 295–302.—The article submits a discussion of the available tests for teachers' use, and of how these should be applied. The value of the quantitative measurements of intelligence is recognized, and the problems are discussed that might receive solution by means of them. The value of these as correcting opinions that have been gained through casual observation and through measurement of school-room accomplishment is emphasized. The author recommends the testing of all new children coming into the school, and occasional testing thereafter. He describes group tests and answers the criticisms that have been made of them. He holds that all testing should have possibilities for qualitative interpretation also. The author describes a group test which he uses, and which reveals whether an individual is concrete- or abstract-minded, and whether he is analytical or inventive. He illustrates from this test and gives some of his findings.—*A. B. Herrig* (Michigan Central State Teachers College).

2548. **Peters, C. C., & Altman, J. E. A critical study of the content of standardized tests in American history.** *J. Educ. Res.*, 1931, **23**, 153–161.—Analysis of the content of 23 widely used standardized tests in American history in regard to percentage of political, socio-economic or military phases, of various historical periods, and the like.—*S. W. Fernberger* (Pennsylvania).

2549. **Phillips, D. P. Comparison of the two-response and dictated recall types of spelling tests.** *J. Educ. Res.*, 1931, **23**, 17–24.—Study made at the college freshmen level, 146 entering freshmen at the Iowa State Teachers College acting as subjects. The author finds that the dictated recall test is the more reliable. He presents criticisms and suggestions for the improvement of the two-response test employed. —*S. W. Fernberger* (Pennsylvania).

2550. **Prentice, D. B., & Kunkel, B. W. The colleges' contributions to intellectual leadership.** *School & Soc.*, 1931, **33**, 280–282.—The authors supplement an earlier report with information concerning the distribution according to time of graduation of the graduates of American colleges listed in *Who's Who*.—*H. L. Koch* (Chicago).

2551. **Pressey, L. C. College students and reading.** *J. Higher Educ.*, 1931, **2**, 30–34.—An analysis of sixteen textbooks in fundamental freshman courses in languages, sciences and history indicated that freshmen need to know how to "read simple graphs, diagrams, tables, and formulas," "to read fairly complex problems," and "to read at least a half dozen common types of textual matter." This "latter reading should be accomplished at a rate of not less than one hundred and fifty words per minute." The author reports that a reading test devised on a basis of this analysis and taken from actual materials used in courses gives a range of scores which indicates total range of abilities. 90% of the individuals scoring in the lower tertile could not read "paragraphs taken from seventh and eighth grade reading material well enough to locate the main idea." The validity of the test in the upper and middle tertile is being investigated.—*R. A. Brotemarkle* (Pennsylvania).

2552. **Ralston, A., & Gage, C. J. Present day psychology.** Philadelphia: Lippincott, 1931. Pp. xiv + 404. $2.40.—The aim of the book is to put the fundamental facts of educational psychology in a language simple enough for the uninitiated to read and understand. The volume consists of three parts: I. Living; a treatment of original behavior, with especial emphasis on child and adolescent emotions. II. Learning. III. Measuring; a discussion of the standard devices for measuring. An objective point of view is maintained. Psychology is defined as a study of how human beings live and behave. Educational psychology is the study of the way in which bonds are strengthened and developed, inhibited where necessary, modified and altered when desirable. Three types of original nature are described: reflexes, instincts, and capacities. Capacity and intelligence are described as synonymous terms. All learning is said to be in the last analysis trial and error. A chronology of the development of tests is given. The bibliography includes 222 titles.—*E. M. Ligon* (Union).

2553. **Regensburg, J. Retraining in reading—a new method.** *Amer. J. Orthopsychiat.*, 1931, **1**, 163–172.—Description of the method of teaching children with a special reading disability to read. The technique includes training the child by tracing letters with his fingers, forming large letters, and giving the sound of the letter at the same time.

From letters he progresses to short words, then phrases, and finally sentences and paragraphs. The method is based largely on the premise that Orton's physiological explanation of such disability is correct, i.e., that the person who cannot read is unable to suppress the non-dominant image of one hemisphere, so that either one of the pair may be associated with the same sound and meaning; this accounts for the large number of left-right confusions, e.g., *p* and *q*, *b* and *d*, "saw" and "was," etc.—*D. E. Johannsen* (Rochester).

2554. **Riedel, K. Pädagogische Pläne auf erfahrungsseelenkundlicher Grundlage.** (Pedagogical studies based on empirically acquired knowledge of the psychic self.) *Neue Dtsch. Schule,* 1931, **35**, 24–30.—An article on the pedagogical contribution of Friedrich Eduard Beneke (1798–1854), who stood between Pestalozzi and Herbart, influencing the pedagogy of the middle nineteenth century. He states as the aim of education the continued improvement of the individual and of society. Training is purposeful impression by adults upon youth to lift them to the level of adulthood. He regards education as mental culture through experience. The pedagogue can accomplish his aim only through presentation of sensory material. Knowledge, feeling and effort come indirectly through these. He recognizes the harmonious development of the subject through these and sees training through them of imagination, disposition and character. Training should be concerned with the development of the higher and the inhibiting of the lower tendencies. The article contains Beneke's scheme for the instruction of youth.—*A. B. Herrig* (Michigan Central State Teachers College).

2555. **Sorenson, H. Some extra-mural and intra-mural comparisons on college ability and achievement.** *J. Educ. Res.,* 1931, **23**, 43–46.—Comparison of the extra-mural and intra-mural students in some University of Minnesota classes, results from 286 students being treated. "Although there is no inferiority in any decile of this particular group, it has been found that while the extra-mural classes are equal or superior in mental ability, there is a lowest 10 or 20 percent which is definitely inferior to the lowest 10 or 20 percent of the full time groups with which comparisons were made."—*S. W. Fernberger* (Pennsylvania).

2556. **Symonds, P. M. Practice versus grammar in the learning of correct English usage.** *J. Educ. Psychol.,* 1931, **22**, 81–95.—Six different experimental procedures for training in English usage were tried with large samplings of Grade VI pupils. A test modeled after the Charters Diagnostic Language Tests was given at the opening and at the close of the experiment, and gains from training were computed in terms of test score with practice effect eliminated. Mere repetition of correct form yields very small gains. Learning of rules, definitions, and principles of grammar produce a gain in usage, and the transfer is greatest with bright children. Practice in choice of correct expressions has greater influence than learning of rules or analysis of grammatical constructions. Repetition of right and wrong forms in succession, to bring out the distinction clearly, has greater influence than any of the work with grammar. The whole program of training resulted in a greater improvement of usage than did any single method alone. "It is estimated that these Grade VI classes made a gain in correct usage which is ordinarily to be expected in three years by working on this program fifteen minutes a day for three weeks."—*J. A. McGeoch* (Missouri).

2557. **Volney, W. A study to determine whether beginning algebra should be taught in the ninth or tenth grade.** *School & Soc.,* 1931, **33**, 179–180.—After studying the progress in algebra, as revealed by several standardized tests, of 180 ninth- and 159 tenth-graders in the same school system and under the same teachers, the author concludes that whether algebra is offered in the ninth or tenth grade has little effect upon achievement. Ninth-grade arithmetic seems to have little influence upon later performance in algebra.—*H. L. Koch* (Chicago).

2558. **Wright, E. A. Bibliography of research studies in education.** *U. S. Office Educ., Bull.,* 1930, No. 23. Pp. 308.—Annotated bibliography of 3065 titles of published and manuscript articles on all aspects of educational research completed between July, 1928, and June, 1929. The entries are classified by subject in the main list and are indexed by author and institution.—*C. M. Louttit* (Ohio).

2559. **Zyve, C. Experiments in the teaching of integrity.** *Teach. Coll. Rec.,* 1931, **32**, 359–374.—75 of the 375 grade 3–6 children who made unmistakable changes in the self-correction of the Woody-McCall Mixed Fundamentals in Arithmetic Tests and Morrison-McCall Spelling Tests, were divided into 3 groups—a control group, a "specific" group and a "non-specific" group—which met twice a week for 10 weeks preceding the repetition of the achievement tests. After the results were obtained, the non-specific and control groups were given specific instruction. Tabular material on the changes is given. "If any assumption may be made from these data, it is that at least in the elementary school the generalized discussion of fair play and integrity are not entirely adequate for the teaching of the working practice of these traits."—*J. M. Stalnaker* (Purdue).

**[See also abstracts 2287, 2302, 2520, 2525, 2573, 2577.]**

## BIOMETRY AND STATISTICS

2560. **Baker, G. A. Distribution of the means of samples of *n* drawn at random from a population represented by a Gram-Charlier series.** *Ann. Math. Stat.,* 1930, **1**, 199–204.—(*Soc. Sci. Abst.* III: 3432).

2561. **Barr, A. S. The coefficient of correlation.** *J. Educ. Res.,* 1931, **23**, 55–60.—A critical editorial regarding the coefficient of correlation, in which the author points out that (1) there is no adequate understanding among "lay workers and consumers of research literature of the amount of relationship between traits represented by coefficients of correlation of different sizes"; (2) "the coefficient of

correlation is frequently erroneously interpreted as a measure of causal relationship," and (3) there are "errors of interpretation due to the acceptance of coefficients of correlation at *face value.*" These facts have been known to the expert statistician for many years; the author now hopes to bring them to the attention of the inexpert reader. The editorial is documented with 25 references.—*S. W. Fernberger* (Pennsylvania).

2562. **Buros, F. C., & Buros, O. K. Test methods and helps. No. 3. Expressing educational measures as percentile ranks.** Yonkers-on-Hudson: World Book, 1930. Pp. 27. $.10.—A simplified technique for converting raw scores into percentile ranks, intended for teachers who have little or no training in statistics. Simple instructions are given for ranking raw scores and tables for converting the ranks into percentile scores.—*C. V. Hudgins* (Clark).

2563. **Carver, H. C. [Ed.] Fundamentals of the theory of sampling.** *Ann. Math. Stat.*, 1930, **1**, 260–274.—(*Soc. Sci. Abst.* III: 3433).

2564. **Court, A. T. Measuring joint causation.** *J. Amer. Stat. Assn.*, 1930, **25**, 245–254.—(*Soc. Sci. Abst.* III: 1846).

2565. **Cureton, E. E. A modification of Thomson's formula for the correlation between initial status and gain, and its standard error.** *J. Exper. Psychol.*, 1930, **13**, 358–364.—One of the most promising leads to a solution of the problem of the relation of ability to improvability, according to the author, is through the correlation of initial status in a learning experiment with gross gain. "This method presupposes that the measurements are in units of work, i.e., that they are records of the amount of work successfully accomplished in a given time." Initial status is "the sum of the scores on some even number of successive trials" whose reliability is found "by correlating the first and last of these against the middle ones and applying the Spearman-Brown formula" and doing the same for the final status. The paper presents a deviation for the correction for attenuation of the correlation under the above conditions and an approximation to its standard error.—*S. Renshaw* (Ohio State).

2566. **De Gleria, A. Una abbreviazione nel calcolo della differenza media.** (A short method in the calculation of the average difference.) *Riv. ital. di stat.*, 1929, **1**, 383–384.—(*Soc. Sci. Abst.* III: 3427).

2567. **Garman, C. G. Variations in linear multiple correlation results caused by a few unusual or off-type farms in a farm organization study.** *J. Farm Econ.*, 1930, **12**, 464–466.—(*Soc. Sci. Abst.* III: 3431).

2568. **Griffin, H. D. On partial correlation vs. partial regression for obtaining the multiple regression equations.** *J. Educ. Psychol.*, 1931, **22**, 35–41.—An historical survey of the problem which shows "that the methods for obtaining the regression equations and the coefficient of multiple correlation were hampered for many years by inadequate and cumbersome methods of solution. Now that a synthesis of the most economical statistical method for obtaining the regression equations, the partial regression method, has been effected with the most economical engineering method for solving simultaneous linear equations, the Doolittle method, we may expect that the multiple correlation and prediction technique will be employed to a much greater extent in educational psychology than in the past."—*J. A. McGeoch* (Missouri).

2569. **Husband, R. W. Semi-logarithmic versus linear plotting of learning curves.** *J. Educ. Psychol.*, 1931, **22**, 72–75.—The usual method of linear plotting has limitations: (1) the shape of the curve varies with the spatial separation of successive units; (2) the unit gains tend to be artificial and dependent on the intervals chosen; and (3) objective and decisive comparison between curves is difficult to make. These difficulties are removed when the data are plotted on semi-logarithmic paper. Learning curves drawn from the same data by the two methods are reproduced and are used as a basis for comparing the methods.—*J. A. McGeoch* (Missouri).

2570. **Irwin, J. O. On the frequency distribution of the means of samples from populations of certain of Pearson's types.** *Metron*, 1930, **8**, 51–105.—(*Soc. Sci. Abst.* III: 3428).

2571. **Larson, S. C. The shrinkage of the coefficient of multiple correlation.** *J. Educ. Psychol.*, 1931, **22**, 45–55.—A study is made, on 800 cases, of the shrinkage attendant upon using a regression equation derived from one group to predict the criterion scores of a second group. It is found that "the theoretically expected shrinkage of $R$ as derived by the multiple correlation formula is a fact." The shrinkage increases as the number of variables increases and as the size of $R$ decreases. The Smith formula for shrinkage-deduction parallels the empirical findings, but consistently yields higher values. The results upon increase in number of test variables suggest that test batteries may have definite limitations in size.—*J. A. McGeoch* (Missouri).

2572. **Lomnicki, A. Sulla necessità di distinguere due generi di dipendenza nella statistica a due variabili.** (On the necessity of distinguishing between two kinds of dependence in statistics of two variables.) *Gior. dell'Ist. d' Attuari*, 1930, **1**, 83–94.—(*Soc. Sci. Abst.* III: 1849).

2573. **Segel, D. The automatic prediction of scholastic success by using the multiple regression technique with electric tabulating and accounting machines.** *J. Educ. Psychol.*, 1931, **22**, 139–144.—A method is described which makes use of the Hollerith tabulator and key punch units.—*J. A. McGeoch* (Missouri).

2574. **Shook, B. L. A synopsis of elementary mathematical statistics.** *Ann. Math. Stat.*, 1930, **1**, 224–259.—(*Soc. Sci. Abst.* III: 3429).

2575. **Thurstone, L. L. The learning function.** *J. Gen. Psychol.*, 1930, **3**, 469–493.—The author develops equations of learning curves principally on the basis of the following assumptions: (1) the principal variables in learning are practice and attainment; (2) learning consists of a series of separable acts, and some of these are successful and others are

errors; (3) the measure of attainment is the probability that the act will be successful; and (4) the number of acts initiated per unit of time is the same for the novice as for the advanced learner if the effort remains constant.—*H. Cason* (Wisconsin).

2576. **Wood, E. R. A graphic method of obtaining the partial-correlation coefficients and the partial-regression coefficients of three or more variables.** *Sup. Educ. Monog.*, 1931, No. 37. Pp. xi + 72.—By means of a chart twelve by fourteen inches in size a method has been devised by which partial-correlation and partial-regression coefficients can be obtained in approximately a third of the time required when a Monroe Calculator and Miner's Tables are used. The simplicity of the chart is demonstrated by an experiment in which 289 students without previous acquaintance either with the chart or with the principles of correlation were enabled after a twenty-five minute demonstration to solve partial correlations at the median rate of 5.75 problems per fifteen-minute period with a relatively small percentage of errors. Its accuracy when used by an expert was tested by a second experiment in which the writer himself when working for accuracy rather than speed solved 50 problems in 75 minutes with a median error of +.0027. When working for speed rather than accuracy, time was somewhat reduced and the errors were slightly larger, but even under these circumstances the likelihood of large errors appears to be smaller than when the calculating machine is used. Graphic devices for determining the zero-order correlations and the standard deviations are also described. There is a bibliography of 45 titles.—*F. L. Goodenough* (Minnesota).

**[See also abstract 2591.]**

## MENTAL TESTS

2577. **Bayles, E. E., & Bedell, R. C. A study of comparative validity as shown by a group of objective tests.** *J. Educ. Res.*, 1931, **23**, 8–16.—12 objective tests of the comprehension type on phases of hygiene were prepared. They were in six forms: controlled completion, modified true-false, matching, multiple choice controlled completion (sentence method) and true-false. These were given to more than 240 students in 9 classes in general science. After statistical treatment by the method of correlation, the author concludes: "The controlled completion (story method) type of objective test is practically certain to be a more valid measure of the intellectual processes which these tests measure than is the ordinary true-false type." It also seems to be a more valid measure than any of the other forms used in the investigation. The modified true-false, the matching type and the multiple choice type appear to be approximately equivalent in validity, while the ordinary true-false type is probably the least valid.—*S. W. Fernberger* (Pennsylvania).

2578. **Beck, S. J. Personality diagnosis by means of the Rorschach test.** *Amer. J. Orthopsychiat.*, 1930, **1**, 81–88.—An explanation of the use of the Rorschach ink-blot test as a measure of intelligence and as a means of indicating emotional stability or instability. A substantiation of the test with illustrations cited from the responses of four cases.—*C. W. Brown* (California).

2579. **Bernreuter, R. G. The personality inventory.** Stanford University, Calif.: Stanford Univ. Press, 1931. 25 copies, $2.00; 100 copies, $7.00.—The author has adapted 125 items from the Thurstone personality schedule, Laird introversion test, Allport ascendance-submission study, and his own self-sufficiency test, and has constructed with these materials an instrument which can be scored in four different ways, viz.: as a measure of neurotic tendency, of self-sufficiency, of introversion-extroversion, and of dominance-submission. He reports reliabilities around .9 for college students, coefficients of validity with the 4 measures named close to 1.0 when corrected for attenuation, and coefficients of intercorrelation ranging from .95 for neurotic tendency and introversion-extroversion to —.87 for neurotic tendency and dominance-submission.—*R. R. Willoughby* (Clark).

2580. **Carter, H. D. A reply to some recent criticisms by Professor Spearman.** *J. Educ. Psychol.*, 1931, **22**, 118–119.—Carter employed, in his paper in *J. Genet. Psychol.*, 1928, **35**, 270–285 (II: 3743), both the method which Spearman, in *J. Educ. Psychol.*, 1930, **21**, 110–111 (IV: 2566), styles obsolete, and the newer tetrad difference method, with concordant results. A more correct use of the intercolumnar criterion does not alter the results.—*J. A. McGeoch* (Missouri).

2581. **Chave, E. J., & Thurstone, L. L. The measurement of social attitudes.** Attitude toward God. Scale No. 22, Form A, B (The reality of God). Scale No. 22, Form C, D (Influence on conduct). Scale No. 22, Form E (Definitions of God). Chicago: Univ. Chicago Press, 1931.—Six forms, the first five containing 20, 20, 22, 22, and 27 statements respectively, compose the test. The sixth form is designed primarily for the examiner, and places the subject in a general classification concerning attitude toward God on a basis of definitions of God. Each statement is rated on a scale of agreement, strong agreement, disagreement, and doubt by check, double check, cross, and question mark respectively. Test includes instructions for marking first five forms, the median scale value of all double checked statements in any form representing a person's score for that particular form.—*J. W. H. Ross* (Clark).

2582. **Eigler, P. The Kohs block design test.** *Child Development*, 1930, **1**, 341–342.—"The Kohs block design test was given to 29 children in the Child Institute of the Johns Hopkins University. The subjects ranged in age from two years four months to five years three months." No child in the two-year group carried out the instructions. Two children in the three-year group obtained scores of 17 and 49 respectively (according to Kohs' score chart). Ten out of seventeen in the four-year group made scores ranging from 2 to 55. Neither of the two five-year subjects was able to succeed in any design.—*W. McTeer* (Detroit City College).

2583. **Fry, F. D. The correlation of the reverse audito-vocal digit memory span with the general intelligence and other mental abilities of 308 prisoners of the Eastern State Penitentiary of Pennsylvania.** *Psychol. Clin.*, 1931, **19**, 156–164.—Of the 308 prisoners 227 were white and 81 were colored. The author's explanations of his results are based mainly upon comparisons between these two groups, one educated and the other uneducated. The results of the reverse digit memory span test are correlated with IQ, vocabulary, and interpretation of fables. The correlation with IQ is high for both whites and negroes, but somewhat higher for the latter. The correlations with vocabulary and fables are low for whites and high for negroes. The reverse digit memory span test result is not affected by education; the results of the other tests are so affected. Thus the correlations are higher for the less educated group.—*J. T. Metcalf* (Vermont).

2584. **Goodenough, F. L., & Tinker, M. A. A comparative study of several methods of measuring speed of tapping in children and adults.** *J. Genet. Psychol.*, 1930, **38**, 146–160.—Reliability coefficients were calculated by the test-retest method (the intervals between one day and one week) on the work of kindergarten children and adults. The different tests used for comparison were: finger-tapping on the comptometer (using index, middle and little fingers), stylus-tapping with wrist movement chiefly, and pencil-tapping with elbow movement chiefly. The reliability coefficients for adults were slightly higher than for the children; and those on single tests of stylus- and pencil-tapping were greater than on a single finger, but the combined scores for the several fingers were as reliable as the combined scores by the other methods. Coefficients for hand preference scores were rather low. Comparison of the various tapping speeds of children and adults revealed a developmental sequence from large to small muscle-groups.—*J. F. Dashiell* (North Carolina).

2585. **Granich, L. A technique for experimentation on guessing in objective tests.** *J. Educ. Psychol.*, 1931, **22**, 145–156.—An index of guessing on objective tests is described. Students cannot reliably indicate their own guessed answers. Warning of the presence of index questions proved more effective in reducing guessing than the usual instructions and warning of penalization. Results from the index questions used are discussed.—*J. A. McGeoch* (Missouri).

2586. **Holzinger, K. J. Statistical résumé of the Spearman two-factor theory.** Chicago: Univ. Chicago Press, 1930. Pp. 43 (mimeographed). $.75.—A summary of the material indicated, including proof of basic theorem, problem error formulae and illustrative examples. The position is taken that Kelley's theorems are unnecessarily cumbersome. A study of the effect of age on the tetrad criterion, reported for the first time, indicates slight effect of age upon the relationship. The derivation of the probable error necessary to evaluate Kelley's case of two independent general factors with no specific factors, as an explanation for three variables, is also reported for the first time, with the notation that so far the writer has found no data to which it applies. Bibliography of 6 items.—*R. R. Willoughby* (Clark).

2587. **Kulp, D. H., II, & Davidson, H. B. Can Neumann's "attitude indicator" be used as a test?** *Teach. Coll. Rec.*, 1931, **32**, 332–337.—The "attitude indicator" (on international relations) "was administered to approximately 600 high school seniors in three matched pairs of distinct types of schools representing three different kinds of social situations." The reliability was found to be .87 to .94 (split halves); or .61 to .81 (retest, with eight-month interval). The indicator is considered valid because of the method of its construction. Experimental validation is given by use of the method of widely spaced groups; the groups are the three schools. The differences of the mean scores for the schools are statistically signficant. Norms are given, based on a total of 637 cases.—*J. M. Stalnaker* (Purdue).

2588. **McClure, J. Outline for psychological examinations in a child guidance clinic.** *J. Genet. Psychol.*, 1930, **37**, 541–544.—A complete form is furnished, including items on attitude, intelligence, achievement, vocational aptitude, etc.—*J. F. Dashiell* (North Carolina).

2589. **McFadden, J. H. Differential responses of normal and feeble-minded subjects of equal mental age, on the Kent-Rosanoff Free Association Test and the Stanford Revision of the Binet-Simon Intelligence Test.** *Ment. Meas. Monog.*, 1931, No. 7. Pp. 85.—Detailed analyses are made of the responses of 529 subjects tested with the Stanford Binet and 507 of these same subjects tested with the Kent-Rosanoff. The subjects were all white and native born, 90% of their parents being native to the state of North Carolina. McFadden considers them to be representative groups. Those classed as normal (210 having IQ's of 90 or above) ranged in chronological age from 6–1 to 10–6, average, 7–8. Those classed as dull (94 having IQ's from 71 to 89) ranged in C.A. from 6–11 to 13–7, average, 9–6. The 203 classed as feeble-minded (IQ below 70) ranged from 8–8 to 41–4, average 17–7. Mental age ranges and averages were approximately equal for the three groups. On the Kent-Rosanoff responses are more similar for mental age than for chronological age groups; as the mental age increases the responses become more like those of the adult; feeble-minded children take less time but respond with poorer quality than do normal children of the same mental age; the wide range of variation in all of the groups indicates that the diagnostic significance of quantitative results of individual examinations is to be seriously discounted unless confirmed by other observations. With respect to the Stanford-Binet, the scale as a whole is highly consistent, though there are certain sub-tests which seem to be harder, and others which seem to be easier, than the general difficulty of the year-level in which they are placed. There are several sub-tests on which the normals exceed the feeble-minded of equal mental age and several on which the reverse is true. The vocabulary is definitely easier for the feeble-minded than for the

normals of the same mental age. The feeble-minded have a slightly but significantly greater variability or scatter on the test than do the normals.—*M. B. Jensen* (Michigan Central State Teachers College).

2590. **Pintner, R. Intelligence testing: methods and results.** (2nd ed.) New York: Holt, 1931. Pp. xii + 555. $2.40.—The work has been largely rewritten and new chapters included to bring it up to date. The bibliographies have also been made comprehensive. Part 3, on the results of intelligence testing, contains chapters on the preschool child, the high school pupil, the college student, the draft army, the gifted, the delinquent, sensory defects, race and nationality differences, industrial findings, sex differences, and mental heredity. A bibliography of 6 closely set pages.—*R. R. Willoughby* (Clark).

2591. **Remmers, H. H. The equivalence of judgments to test items in the sense of the Spearman-Brown formula.** *J. Educ. Psychol.*, 1931, 22, 66–71.—When undergraduates judge the classroom personality traits of instructors, samplings of varying numbers of judges selected at random give reliability coefficients within the allowable error up to 30 judgments. The coefficients compare favorably with those reported for standardized mental and educational tests.—*J. A. McGeoch* (Missouri).

2592. **Spearman, C. What the theory of factors is *not*.** *J. Educ. Psychol.*, 1931, 22, 112–117.—Certain statements made regarding the theory of factors in the volume, *Minnesota Mechanical Ability Tests*, are discussed critically. (1) The theory was definitely advanced in 1904, not in 1914. (2) The existence of two factors in a perfect hierarchy is capable of rigorous proof and is not an assumption. (3) The Minnesota authors seem to hold that the absolute magnitude of the correlations is important to the theory, whereas it is the ratios that matter. (4) They use the wrong formula under conditions which would render even the right one inapplicable. (5) Their hypothesis of "unique traits" seems to Spearman to be the old factors under a new name. (6) The trait of "mechanical ability" had already been discovered by Cox, working on the theory of two factors. A brief discussion of the work of Spearman's own school closes the paper.—*J. A. McGeoch* (Missouri).

2593. **Wile, I. S., & Davis, R. A comparative study of the Kohs block design test.** *Amer. J. Orthopsychiat.*, 1930, 1, 89–103.—The Binet, Pintner-Paterson, Porteus and Kohs tests were given to 250 problem children ranging in age from five to sixteen years inclusive. On the basis of correlations between the tests the authors conclude: (1) from a psycho-clinical point of view the Kohs test offers definite supplementary evidence when dealing with the feeble-minded; (2) it does not differentiate the border-line group; (3) it offers information of special value when it is employed in the study of individual problems of personality; (4) it appears sensitive to emotional interferences with intellectual effectiveness.—*C. W. Brown* (California).

2594. **Willoughby, R. R. E M (emotional maturity) scale.** Stanford University: Stanford Univ. Press, 1931.—A scale consisting of a list of 60 items by means of which a rater (or self-rater) is to describe the subject by checking items characteristic of his behavior. Rating reliability for college student raters is .54, and scale validity is around .60 or .70. Norms based on scores of 70 college students, each rated by himself and two acquaintances, are given in terms of percentile rank. Directions and scoring scale are included.—*J. W. H. Ross* (Clark).

2595. **Wilson, J. H. The nature of intelligence.** *J. Educ. Psychol.*, 1931, 22, 20–34.—A collection of tests of the kinds proposed by Thorndike as unlikely to satisfy the criteria of "g" (memory for digits, arithmetical problems, et al.) have been given in duplicate to 60 boys ranging in age from 15½ to 16½ years, and possessing homogeneous social and educational backgrounds. The results obtained are explained on the basis of a central factor running through all the performances and on a number of other factors specific to each performance. There is evidence of a group factor in the arithmetic tests, but none for such a factor in the verbal or memory tests. Coefficients of saturation differ from test to test. None of the tests used has a sufficiently high coefficient to be effective in evaluation of the central factor present in any particular testee's performance. A repetition of the tests with a group of 50 girls corroborates the main results, but suggests certain sex differences.—*J. A. McGeoch* (Missouri).

**[See also abstracts 2399, 2536.]**